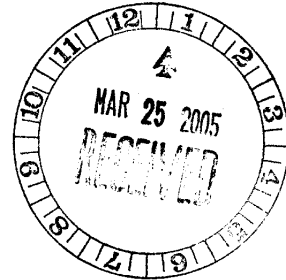




ASSOCIATION OF
AMERICAN RAILROADS

Law Department
Dennis J. Starks
Senior Commerce Counsel

213619



March 25, 2005

BY HAND DELIVERY

The Honorable Vernon A. Williams
Secretary
Surface Transportation Board
1925 K. Street, N.W.
Washington, D.C. 20423

Re: Ex Parte No. 558 (Sub-No. 8), Railroad Cost of Capital - - 2004

Dear Secretary Williams:

Please find enclosed an original and ten (10) copies of the Comments of the Association of American Railroads and Its Member Railroads in the proceeding referenced above. A copy of the same on a 3.5 inch diskette, formatted in Micro Soft Word, is also provided for the Board's convenience.

Please date-stamp the extra copy of the Comments and this Letter, provided for that purpose, and return the same to the undersigned, via the individual hand delivering them.

Sincerely yours,

Dennis J. Starks
Dennis J. Starks

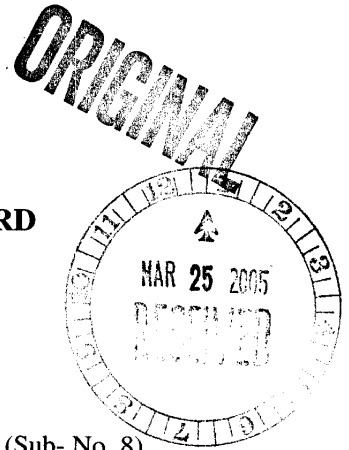
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**BEFORE THE
SURFACE TRANSPORTATION BOARD**



RAILROAD COST OF
CAPITAL — 2004

EX PARTE NO. 558 (Sub- No. 8)

**COMMENTS OF THE ASSOCIATION OF AMERICAN RAILROADS
AND ITS MEMBER RAILROADS**

George P. Aspatore
Jon Broder
Paul Guthrie
Paul R. Hitchcock
Theodore K. Kalick
Robert T. Opal
Louise Anne Rinn
Michael E. Roper
Peter J. Shudtz
Greg E. Summy
Richard E. Weicher
William J. Wochner

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Louis P. Warchot
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Counsel for the Association of American Railroads
and Member Railroads

March 25, 2005

Verified Statements

Tab	Witness*	Subject
1	Craig F. Rockey	The railroads' cost of common equity and overall cost of capital.
2	David F. Miller	Bond yields for 2004; yields on equipment trust certificates and conditional sales agreements; railroads' cost of debt and preferred equity; the market value capital structure.

*Verified statements are referenced in these comments by witness name – viz., V.S. Rockey at _____

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

RAILROAD COST OF
CAPITAL — 2004

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EX PARTE NO. 558 (Sub- No. 8)

**COMMENTS OF THE ASSOCIATION OF AMERICAN RAILROADS
AND ITS MEMBER RAILROADS**

By order served December 20, 2004, the Surface Transportation Board (STB/Board) instituted this proceeding to determine the railroads' cost of capital for the year 2004. That determination, as the Board noted, will enable it to make the statutorily required (49 U.S.C. 10701 (d)(2), 10704(a)(2)) annual individual railroad revenue adequacy determination for 2004. The Board noted further that the cost of capital determination may also be used in various other STB railroad proceedings. See Ex Parte No. 558 (Sub-No. 8) *Railroad Cost of Capital – 2004* (Served December 20, 2004) (Slip Op. 1).

The railroads, through the Association of American Railroads (AAR) are submitting herewith their calculation of (1) the railroads' current 2004 cost of debt capital; (2) the railroads' 2004 current cost of preferred equity capital; (3) the railroads' 2004 cost of common equity capital and (4) the 2004 capital structure mix of the railroad industry on a market value basis.

AAR, through the attached verified statements of Craig F. Rockey, Vice President, Policy and Economics Department of the Association of American Railroads, and David F. Miller, Director – Accounting and Finance, AAR Policy and Economics Department. These statements establish the following:

1. The 2004 cost of debt capital is 5.26 (VS. Miller pp. 2, 14; Rockey pp. 2, 15).
2. There is no preferred equity capital for 2004 (VS. Miller p.2; Rockey p. 2).
3. The 2004 cost of common equity capital is 13.16 (VS. Rockey pp. 2, 15).
4. The capital structure of the railroad industry is 38.5 percent debt, 0.0 percent preferred equity and 61.5 percent common equity. (VS. Miller p. 15; VS. Rockey p. 2, 15).

From these data Mr. Rockey concludes that the overall railroad industry cost of capital for 2004 is 10.1 percent (V. S. Rockey pp. 2, 15).

I. Introduction

The sole purpose of this proceeding is to determine the cost of capital for 2004. Thus, while the revenue adequacy standards are not at issue in this proceeding, it has been held that the current cost of capital will continue to be the sole standard of revenue adequacy, and that the cost of capital will be computed using the current cost of debt and market value weights. See Ex Parte No. 393 (Sub-No. 1), *Standards for Railroad Revenue Adequacy*, 3 I.C.C. 2d 261 (1986), *aff'd sub. nom., Consolidated Rail Corporation v. United States*, 855 F.2d 78 (3rd Cir. 1988).

II. The Cost Of Common Equity Capital

The Discounted Cash Flow (DCF) methodology has been used in all previous cost of capital proceedings to determine the cost of equity. The validity of the DCF approach is recognized by nearly every rate of return analyst in the United States, and among federal and state regulatory agencies, the DCF model is the most widely used method for determining the cost of equity.¹ Mr. Rockey has established the DCF methodology in his calculation of the cost of common equity in this proceeding.

Under the DCF methodology, the cost of common equity is determined by adding together the dividend yield (the expected dividend for the next period divided by the common stock price) and the expected growth rate. The dividend yield is computed using publicly available data from the stock market. In all cost of capital proceedings since 1982, the Board has determined the expected growth rate by using a truncated average of published long-term earnings growth forecasts by a large number of security analysts to obtain an estimate of the investors' consensus of earnings growth expectations. The use of analysts' forecasts to estimate the composite growth rate is the most accurate approach available. As the Board has properly recognized, this part of the DCF formula measures investors' expectations, and a consensus of analysts' forecasts is the best evidence of those expectations. V.S. Rockey at pp. 9-10.

In cost of capital proceedings prior to Ex Parte No. 473, *Railroad Cost of Capital* — 1987, 4 I.C.C. 2d 621 (1988), the expected growth rate has been calculated based on the consensus forecasts made by a group of prominent investment analysts who follow the rail industry. Commencing with Ex Parte No. 473, however, the Board has expressed a preference

¹ V.S. Rockey at 8-9; National Association of Regulatory Utility Commissioners, *Utility Regulatory Policy in United States and Canada 1994-1995*, at pp. 520, 588, 615 (August 23, 1995).

for use of consensus analyst five-year earnings per share growth rate forecasts published in Institutional Brokers Estimate System (IBES) reports.² AAR has accordingly used IBES data in determining the expected growth rate in this proceeding. Rockey at p. 9-11.

Based on a four-railroad composite and the identical DCF procedures used in the last eleven cost of capital proceedings, Mr. Rockey estimates that the cost of common equity capital for 2004 is 13.16 percent. V.S. Rockey at pp. 14.

III. The Cost Of Preferred Equity Capital

Preferred stock is a hybrid security which has some characteristics of debt and some characteristics of equity. Its cost depends in large part on its specific features. David F. Miller, the AAR's Director – Accounting and Finance, has determined the cost of railroad preferred equity based on the methodology used by the Board in the last thirteen proceedings. That methodology is based upon the following criteria:

- (a) Where the preferred is not convertible into common stock, and where the corporation is not required to redeem the preferred at specific times, the cost of preferred equity is equal to its current dividend yield.
- (b) Where the preferred is not convertible but is subject to mandatory redemption providing holders of the instrument with a premium, the cost is equal to the current dividend yield, plus the present value of the premium.

² These reports are available from Lynch, Jones & Ryan, 325 Hudson Street, New York, N.Y. 10013.

- (c) Where the preferred is convertible at the option of the holder, and the market values of the preferred and common indicate that conversion is likely to occur or that the conversion right controls the price of the preferred, the preferred has the same cost as common equity.

Because the railroads had no preferred stock outstanding at the end of 2004, there is no 2004 cost of preferred equity capital.. V.S. Rockey at p. 2, 14. V.S. Miller at p.2.

IV. The Cost Of Debt

To determine the cost of debt, Mr. Miller has computed the average current bond yield for all 63 of the publicly traded bonds (during 2004) of the sample railroads. This methodology is identical to that used in the last 14 cost of capital proceedings. See *Ex Parte No. 558 (Sub 4) Railroad Cost of Capital – 2003*, __ S.T.B. __ (Served June 28, 2004); see also V.S. Miller at 5–6. Under this approach, the bond yield is effectively based on a sample representing 74.3 percent of the total market value of the bonds issued by the railroads in the sample. As the Board has recognized, equipment trust certificates (ETCs) and conditional sales agreements (CSAs) are not actively traded in secondary markets. Their costs were therefore estimated by comparing them to the yields on other debt securities that are actively traded.³ This is the same methodology used by the Board in the last seventeen proceedings. The composite current cost of debt is the market-weighted average cost of bonds, ETCs, and CSAs, plus a small floatation cost. Using the Board's established methodology, the railroads' 2004 cost of debt is 5.26 percent. V.S. Miller at p. 14.

³ V.S. Miller at 6–10.

V. The 2004 Capital Structure Of The Railroad Industry and the Overall Cost Of Capital

Pursuant to the Board's December 13, 2004 decision, the market values of debt, preferred equity, and common equity were compiled to compute the 2004 capital structure mix of the railroad industry. The railroads' market value capital structure is 38.5 percent debt, 0.0 percent preferred equity capital, and 61.5 percent common equity capital. V.S. Miller at p. 14. Based upon this capital structure, the overall 2004 cost of capital is 10.1 percent. V.S. Rockey at 15.

The cost of capital for 2004 is higher than the cost of capital for 2003, which was found to be 9.4 percent.

Conclusion

The Board should determine that the railroads' cost of capital for 2004 is 10.1 percent.

Respectfully submitted,



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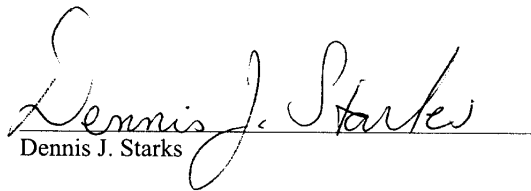
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Peter J. Shudtz
Greg E. Summy
Richard E. Weicher
William J. Wochner

Counsel for the Association of American Railroads
and Member Railroads

March 25, 2005

Certificate Of Service

I, Dennis J. Starks, hereby certify that on this 25th day of March 2005, I have served true and accurate copies of the foregoing Comments of the Association of American Railroads and Its Member Railroads upon all parties on the service list in this proceeding.


Dennis J. Starks

1

BEFORE THE
SURFACE TRANSPORTATION BOARD

EX PARTE NO. 558 (Sub-No. 8)
RAILROAD COST OF CAPITAL — 2004

VERIFIED STATEMENT
OF
CRAIG F. ROCKEY
VICE PRESIDENT
ASSOCIATION OF AMERICAN RAILROADS

March 25, 2005

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**Verified Statement
of
Craig F. Rockey**

I. Introduction

My name is Craig F. Rockey. I am Vice President – Policy and Economics of the Association of American Railroads (AAR), with offices at 50 F Street, N.W.; Washington, D.C. 20001. The AAR is the trade association for the nation's railroads, as well as the railroads of Canada and Mexico. The AAR's United States railroad members, which include all of the Class I railroads, account for 95 percent of our nation's total railroad operating revenue.

The AAR serves as the central agency of the railroad industry for the collection and analysis of economic and financial data and it represents the industry in regulatory proceedings before the Surface Transportation Board ("STB" or "Board"). In particular, the AAR has participated in all of the STB proceedings addressing revenue adequacy standards and the annual cost of capital determinations.

Aside from other responsibilities, I have conducted or directed a wide range of analyses or projects addressing regulatory, legislative and internal issues relevant to the railroad industry. Furthermore, I have testified before federal, state, and local regulatory agencies, and have been an expert witness for the railroad industry on economic, statistical, and financial matters over the past 27 years. A summary of my qualifications and experience appears at the end of this statement.

In this submission, I am responding to the Board's decision of December 13, 2004 (served December 20), instituting the proceeding to determine the railroad industry's 2004 cost of capital — Ex Parte No. 558 (Sub-No. 8), *Railroad Cost of Capital — 2004* ("Ex Parte 558

Decision"). In my statement, I calculate the cost of common equity capital and the overall cost of capital of the railroad industry (incorporating the cost of debt, cost of preferred equity, and market value capital structure mix of the railroad industry as computed by the AAR using the procedures accepted in previous STB proceedings). My statement is accompanied by the Verified Statement of David F. Miller, Director – Accounting & Finance of the AAR in which he presents the details underlying the calculation of the current cost of debt and preferred equity, and the market value of the capital structure mix.

I conclude that the 2004 cost of capital for the railroad industry is 10.1 percent. This estimate is based on a cost of common equity capital of 13.16 percent, and a current cost of debt of 5.26 percent; and market value weights for common equity and debt of 61.5 percent, and 38.5 percent, respectively. There were no preferred stock issues outstanding in 2004. Therefore, preferred equity capital is not included in the overall cost of capital.

II. Determining The Cost Of Capital

A. Defining the Cost of Capital

The cost of capital is the minimum rate of return on investment which the providers of capital require as a condition for undertaking an investment. In essence, it is the threshold rate of return on investment which makes capital investment attractive. The cost of capital is an opportunity cost in that it recognizes what investors sacrifice by not investing their funds elsewhere. Investment funds generally flow to projects and companies where the expected returns are thought to at least equal to the expected returns available of other investment opportunities, giving consideration to the relative (or commensurate) risk of investment.

As an example of the cost of capital, assume that an investment in a company is valued at \$1,000 and that the current rate of return on that investment generated by that company is \$70, equating to 7.0 percent. The investors in that company would generally not elect to keep their money in this company if, assuming equal risk, other investment opportunities offer expectations of greater returns. It may be that the cost of capital to this company is 12.0 percent, because that is the rate of return on investment required to attract investors and to keep investors from ultimately transferring their funds to alternative investments. In this case, the 12.0 percent return on investment to be found elsewhere is the opportunity cost, and thus, the cost of capital to the firm. Simply stated, that company's investors "demand" the opportunity (or expected) rate of return on investment or they will move their funds to alternative choices that provide such expectations.

B. The Composite Railroad Approach

The STB has adopted a composite railroad approach to computing an industry-wide cost of capital. This approach relies upon data from a sample of railroads meeting criteria established by the Board in Ex Parte No. 458, *Railroad Cost of Capital — 1984*, 1 I.C.C. 2d 989, 1003–1004 (1985). The composite approach is both statistically and economically sound for several reasons. First, the current cost of investment-grade debt does not vary significantly among major railroads. This is because major railroads face similar market pressures from such forces as the economic climate, foreign trade policy, regulation and competition. Second, while there may be estimation errors associated with the direct measurement of the cost of equity for individual railroads, an industry-wide calculation tends to average out such errors. Third, financial theory indicates that, when computing the cost of capital based on current debt costs, increases (or decreases) in the debt/equity ratio cause corresponding increases (or decreases) in the cost of

equity that result in a constant current cost of capital. (This relationship stems from the fact that as the percentage of debt in the capital structure increases, the cost of equity increases as a result of the increased risk.) Use of an industry-wide debt/equity ratio and industry-wide costs of debt and equity are, therefore, appropriate.¹

C. Selection of Railroads for Analysis

Under the criteria established by the Board for individual firm inclusion in the composite railroad sample, the company must operate a Class I railroad, must have at least 50 percent of its assets devoted to rail operations, must be listed on the New York or American Stock Exchanges, must have investment grade debt,² and must have paid dividends throughout the year in question. (Ex Parte 558 Sub-No. 3 Decision at 1-2.)

The Board's criteria for inclusion in the sample are generally sound. First, as the Board has recognized, in order to determine the cost of equity using the DCF model, it is essential that the company has paid dividends throughout the year at issue and that the company's stock is actively traded on either the New York or American Stock Exchanges. These qualifications help to insure that the dividend yield component of the DCF model is accurately estimated.

Second, it is necessary to determine the cost of debt for the composite sample based on investment grade railroad debt issues in order to avoid incorporating an estimate of the default premium associated with non-investment grade debt.

¹ See, e.g., F. Modigliani and M. Miller, "The Cost of Capital, Corporation Finance and the Theory of Investment," *American Economic Review*, June 1958, p. 7; M. Miller, "Debt and Taxes," *Journal of Finance*, May 1977.

² Investment grade debt is defined as senior debt securities with a Rating of AAA to BBB.

Finally, the composite must be representative of the railroad industry. The Board has properly determined that any company included should be predominantly railroad-oriented, and thus have at least 50 percent of its assets devoted to the railroad business.

This year there are four railroad corporations or holding companies in the sample under the Board's criteria: Burlington Northern Santa Fe Corporation, CSX Corporation, Norfolk Southern Corporation, and Union Pacific Corporation (see Table No. 1). The 2004 sample is composed of the same railroad entities that were included in the 2003 sample.

Table No. 1
Evaluation of Class I Railroads
Under Surface Transportation Board Selection Criteria
2004

Class I Railroad^d	Parent	Stock Symbol	Listed NYSE/ASE	Dividends Throughout 2004	Rail Assets Account For At Least 50% of Parent	Adequate Debt Rating
BNSF	Burlington Northern Santa Fe Corp.	BNI	Yes	Yes	Yes	Yes
CSX	CSX Corporation	CSX	Yes	Yes	Yes	Yes
CNGT*	Canadian National Railway Co.	CNI	Yes	Yes	No	Yes
KCS	Kansas City Southern	KSU	Yes	No	Yes	Yes
NS	Norfolk Southern Corporation	NSC	Yes	Yes	Yes	Yes
SOO*	Canadian Pacific Railway Limited	CP	Yes	No	No	Yes
UP	Union Pacific Corporation	UNP	Yes	Yes	Yes	Yes

* CNGT is Grand Trunk Corporation, and consists of most of the U.S. railroad operations of Canadian National Railway (CN). SOO is Soo Line Railroad, the western U.S. operations of Canadian Pacific Railway (CP). Following STB precedent, CN and Canadian Pacific were not included in the sample because both CN and CP are Canadian corporations – and the cost of capital proceeding is concerned with determining costs for U.S. railroads under STB jurisdiction.

As in past years, this year's sample includes a substantial percentage of both the revenues and assets of the entire rail industry. As shown in Table No. 2, based on nine months reporting, the four-firm composite accounts for approximately 92.5 percent of the revenues and

89.5 percent of the assets of all Class I railroads in 2004. Accordingly, the sample is representative of the industry.

Table No. 2
Relative Size of the Railroad Composite Sample
2004
First Nine Months

Railroad	Revenue (\$000)	Assets (\$000)	Pct of Total Class I RR	
			Revenue	Assets
BNSF	\$7,908,950	\$29,862,632	26.7 %	24.9 %
CSX	5,200,983	\$21,859,426	17.5	18.2
NS	5,363,275	\$22,981,704	18.1	19.1
UP	8,972,113	\$32,721,721	30.2	27.3
Total	\$27,445,321	\$107,425,483	92.5	89.5
Total Class I	\$29,669,167	\$120,022,129	100.0 %	100.0 %

NOTE: Revenue and asset figures are from the Revenues, Expenses and Income reports and the Condensed Balance Sheet reports, submitted by Class I railroads to the STB for the third quarter of 2004.

D. Types of Railroad Capital

A firm's overall cost of capital is the opportunity cost of the funds available to the firm and to its investors. As an alternative to investing in a new project of average risk, a firm could repurchase a fraction of its outstanding securities at prevailing market prices. Because the expected rate of return on the total market value of a firm's outstanding securities reflects the opportunity cost of funds used in repurchasing such securities, the expected rate of return on the total market value of the firm's outstanding securities is equal to its overall cost of capital. The total capital of a firm generally includes common and preferred stock (equity), as well as debt. Each of these three sources of capital have different expected rates of return, and thus the overall cost of capital is a market value of the weighted average of the costs of common equity, preferred equity, and debt.

Different approaches are used to estimate the costs of the three types of capital. In this statement, I estimate the cost of equity employing the DCF method and review the calculations of the cost of preferred equity and the cost of debt presented in the accompanying statement of Mr. Miller. These calculations are based on average 2004 costs. I then compute the industry's overall cost of capital as a weighted average based on the market value of the three types of capital.

III. The Cost Of Common Equity Capital In 2004

The cost of equity is the opportunity cost of investing in a share of a firm's stock; i.e., the expected rate of return, which investors require on the market value (purchase price) of the stock in light of alternative investment opportunities of comparable risk. Because investor expectations are not directly observable, analysts have developed methods of inferring the cost of equity from available financial data. The DCF method used in this statement to compute the cost of equity is the same method which has been used in the Board's previous cost of capital proceedings, and relies upon observed stock prices and analyst growth forecasts. The DCF method is recognized as a valid approach to measuring the cost of equity by the overwhelming majority of financial experts in the country, and among federal and state regulatory agencies it is the most widely used method for determining the cost of equity. See National Association of Regulatory Utility Commissioners, *Utility Regulatory Policy in United States and Canada 1995-96* at pages 269, 530, 603 and 631 (December 16, 1996).

A. The Discounted Cash Flow ("DCF") Method

In previous cost of capital determinations, the Board has relied upon the Discounted Cash Flow (DCF) methodology to determine the railroad industry's cost of common equity capital.

The DCF methodology requires an estimate of expected growth in earnings (the "g" component of the DCF formula), and the Board has in past proceedings encouraged the use of growth rate data developed by the Institutional Brokers Estimate System (IBES) for this purpose.³

Accordingly, I have employed the DCF methodology using IBES data, as relied on by the Board in its 2003 cost of capital determination in Ex Parte No. 558 (Sub-No. 7), *Railroad Cost of Capital — 2003* (June 2004).

The cost of equity under the DCF method is the discount rate which makes the present value of all expected returns from holding the stock, including both dividends and price appreciation, equal to the stock's current market value. In formulaic terms, under the DCF model the firm's cost of equity capital may be expressed as:

$$K = \frac{D_1}{P_0} + g$$

where:

K = the firm's cost of equity,

D₁ = the prospective annual dividend,

P₀ = the current price of the firm's stock, and

g = the expected rate of earnings growth.

The two terms in the formula, $\frac{D_1}{P_0}$ and g, correspond to the two forms of return from holding a stock — namely, dividends and price appreciation. The first term, $\frac{D_1}{P_0}$, is the expected dividend yield. The price appreciation component g arises from the growth in the firm's earnings and dividends over time. If the earnings of the firm grow at a rate of g, and if the earnings/price

³ The IBES data are available from I/B/E/S International; 195 Broadway; New York, NY 10007.

ratio of the firm's stock remains constant, the value of a share in the firm would also grow at a rate of g .

In the last 23 cost of capital proceedings, the STB used the current dividend yield, D_0 , multiplied by one plus one-half the growth rate, $\frac{D_0(1 + g/2)}{P_0}$, rather than one plus the full growth rate to estimate $\frac{D_1}{P_0}$. This multiplier was adopted by the Board on the assumption that dividends are paid annually. Actually, railroads pay quarterly dividends and thus the agency's multiplier understates the expected dividend rate because it ignores the time value of money: i.e., the payment of four quarterly dividends over the next year is more valuable than a single year-end dividend equal to the sum of the quarterly dividends. However, I agree with the previous statement of Dr. Robert H. Litzenberger, then Professor of Finance, Wharton School, University of Pennsylvania, in his testimony in Ex Parte No. 473, *Railroad Cost of Capital — 1987* on behalf of the railroad industry, that "...the use of the Commission's procedure is not a major source of bias..." Litzenberger Ex Parte No. 473 V.S. at 13.

1. Composite Growth Rate

In the past 23 cost of capital proceedings, the Board has used a consensus of security analysts' forecasts to obtain an estimate of the composite earnings growth rate. As the Board has recognized, the "g" component of the DCF formula measures investor's expectations, and a consensus of analysts' forecasts is the most accurate method available for estimating those expectations.

In its decision in Ex Parte No. 473, the Board expressed a preference for use of consensus analyst five-year earnings-per-share forecasts developed by IBES in lieu of the consensus five-year growth forecasts of prominent investment analysts that was employed in previous

proceedings. I have, accordingly, employed IBES data in determining the composite growth rate in this proceeding. As in Ex Parte No. 491, *Railroad Cost of Capital — 1990*, where the Board focused on the issue of a truncated average vs. an overall average forecast where sufficient forecasts are available for a sample railroad, I have employed a truncated average⁴ of IBES survey forecasts.

The methodology employed here is identical to that employed and accepted by the STB in Ex Parte No. 491. The truncated average of the IBES survey forecasts for each railroad was calculated for each month and then averaged over the 12-month period January 2004 through December 2004. From IBES data, the following are determined for each sample railroad for each of the 12 sample months during 2004: a simple average, the highest forecast, the lowest forecast, and the number of forecasts. The number of forecasts upon which the IBES sample average was based varied between a monthly high of 11 for Norfolk Southern to a monthly low of 3 for CSX Corporation. For each of the four railroads in the industry composite, the 2004 average of the IBES monthly mean growth forecasts (both simple and truncated) is provided in Table No. 3. The composite growth estimate based on the truncated means is 11.39 percent.

As summarized in Table No. 3, the 11.39 percent composite growth estimate is calculated as follows:

- Step 1 A simple average rate of 11.51 percent is computed from the IBES estimates based on monthly averages for each railroad;
- Step 2 The high and low rates are deleted in each month for each railroad and a truncated simple average of 11.51 percent is derived;

⁴ The Board has observed that a truncated average, which excludes the upper-most and lower-most forecasts, is more reliable than an overall average forecast. 4 I.C.C. 2d at 628.

- Step 3 Railroad weights are calculated using average daily closing prices and the number of shares outstanding at the end of each quarter (as reported by the sample railroads). Quarterly data is adjusted with specific monthly data when there are new issues of common stock; and
- Step 4 The weights for each railroad are multiplied by each railroad's truncated average to derive a weighted-average, truncated growth rate of 11.39 percent.

Table No. 3
Calculation of Average Railroad Growth Rates – 2004

Railroad	Simple Average ¹	Truncated Average ²	Railroad Weights ³	IBES Composite	
				Simple Average ⁴	Truncated Average ⁵
BNI	10.78	10.91	0.2870	3.09	3.13
CSX	12.12	11.71	0.1518	1.84	1.78
NSC	12.46	12.47	0.2256	2.81	2.81
UNP	10.69	10.93	0.3356	3.59	3.67
Average:	11.51	11.51			
Total:			1.0000		
Composite Growth Rate				11.33	11.39 %

Notes: ¹ Data extracted from IBES database; see Appendix B summary.
² Computed by eliminating high and low growth estimates from Simple Average computation; see Appendix C
³ Weights based on market value of each sample railroad divided by the composite railroad market value.
⁴ Computed by multiplying the Simple Average by the Railroad Weights.
⁵ Computed by multiplying the Truncated Average by the Railroad Weights.

Thus, the IBES consensus forecast provides an estimate of 11.39 percent for the average 2004 long-term (five-year) growth expectations of investors. The 2004 average estimate of the industry's growth expectation is 39 basis points (approximately four-tenths of a percentage point) higher than the 2003 estimate used by the Board in its previous (2003) cost of capital determination, Ex Parte No. 558 (Sub-No. 7) of 11.00 percent.

2. Composite Dividend Yield

Using the same methodology relied upon by the Board in prior proceedings, I have determined the 2004 dividend yield for the composite railroad as an average of the composite dividend yield for each month using the average of all daily closing stock prices for that month.⁵

The estimate of the 2004 average current dividend yield for the composite railroad is 1.67 percent. This estimate is 3 basis points higher than the 2003 average dividend yield determined by the Board in Ex Parte No. 558 (Sub-No. 7), i.e., 1.64 percent. Table No. 4 summarizes the calculation of the composite current dividend yield.

3. Application of Data to DCF Model

The 11.39 percent growth rate and the 1.67 percent dividend yield for the composite railroad produces a 2004 average cost of equity capital estimate of 13.16 percent. That is:

$$\begin{aligned} K &= \left[\frac{D_0}{P_0} \times (1 + g/2) \right] + g \\ &= [(1.67) \times (1.05695)] + 11.39 \\ &= 13.16 \% \end{aligned}$$

⁵ Closing stock prices from the New York Stock Exchange were obtained from MSN Money (<http://moneycentral.msn.com>) as reported by Commodity Systems, Inc.

⁶ The cost of common equity normally includes flotation costs because the net proceeds from the issues are reduced by both the underwriter's spread and the price pressure effect at the time of announcement of the stock issue. My calculation, however, does not include flotation costs. This is because the Commission has, in the past, allowed the inclusion of flotation costs for common equity only where a railroad has issued common equity capital in the year at issue — in this case, 2004. Ex Parte No. 506, 8 I.C.C. 2d at 414–415. No new common equity capital was issued by any of the composite railroads in 2004, and therefore flotation costs were not included in my calculation.

Table No. 4
Calculation of Composite Current Dividend Yield
For Each Month and for Year – 2004

January			February			March		
Railroad	Weight	Weighted Yield	Railroad	Weight	Weighted Yield	Railroad	Weight	Weighted Yield
BNI	0.262063	0.487861 %	BNI	0.272150	0.506011 %	BNI	0.271961	0.527227 %
CSX	0.162839	0.188307	CSX	0.153467	0.195313	CSX	0.154040	0.203757
NSC	0.197501	0.273712	NSC	0.196686	0.283896	NSC	0.197589	0.296569
UNP	0.377598	0.678117	UNP	0.377696	0.703345	UNP	0.376409	0.736253
Total	1.000000	1.627997 %	Total	1.000000	1.688566 %	Total	1.000000	1.763806 %

April			May			June		
Railroad	Weight	Weighted Yield	Railroad	Weight	Weighted Yield	Railroad	Weight	Weighted Yield
BNI	0.281725	0.523004 %	BNI	0.282291	0.518599 %	BNI	0.284608	0.499604 %
CSX	0.153008	0.202125	CSX	0.155027	0.200423	CSX	0.154996	0.192541
NSC	0.209705	0.294194	NSC	0.217055	0.291716	NSC	0.221313	0.281255
UNP	0.355562	0.730356	UNP	0.345627	0.724205	UNP	0.339084	0.695676
Total	1.000000	1.749679 %	Total	1.000000	1.734944 %	Total	1.000000	1.669076 %

July			August			September		
Railroad	Weight	Weighted Yield	Railroad	Weight	Weighted Yield	Railroad	Weight	Weighted Yield
BNI	0.289800	0.567091 %	BNI	0.290796	0.562404 %	BNI	0.291624	0.533794 %
CSX	0.149980	0.192839	CSX	0.148884	0.191245	CSX	0.149756	0.180484
NSC	0.227464	0.352111	NSC	0.237282	0.349201	NSC	0.241124	0.331443
UNP	0.332756	0.696749	UNP	0.323038	0.690990	UNP	0.317495	0.652276
Total	1.000000	1.808790 %	Total	1.000000	1.793840 %	Total	1.000000	1.697996 %

October			November			December		
Railroad	Weight	Weighted Yield	Railroad	Weight	Weighted Yield	Railroad	Weight	Weighted Yield
BNI	0.295001	0.500501 %	BNI	0.302188	0.465431 %	BNI	0.307834	0.450069 %
CSX	0.147862	0.169227	CSX	0.147022	0.157369	CSX	0.147795	0.151430
NSC	0.245276	0.310770	NSC	0.248174	0.288995	NSC	0.250225	0.280836
UNP	0.311861	0.611593	UNP	0.302616	0.568738	UNP	0.294145	0.549120
Total	1.000000	1.592091 %	Total	1.000000	1.480533 %	Total	1.000000	1.431456 %

Note: The Simple Average of the 12 monthly dividend yields is: **1.67% percent.**

Source: Dividend yields were obtained from railroad financial reports. Weights are based on the monthly market values of individual railroads divided by the total monthly market value. See Appendix J of D.F. Miller's Verified Statement submitted in this proceeding for underlying data.

B. Conclusion as to Cost of Equity Capital

The average 2004 cost of equity estimate for the composite railroad is 13.16 percent. The procedures used to obtain these estimates are identical to those used by the Board to obtain the estimates in the most recent previous proceedings. These procedures provide consistent and reliable annual average cost of equity estimates.

IV. The Cost Of Debt In 2004

The cost of debt calculations are presented in the separate, accompanying Verified Statement of David F. Miller. Mr. Miller found the 2004 average current cost of debt to be 5.10 percent before flotation costs and 5.26 percent after flotation costs. I have examined Mr. Miller's calculations and methods and concur in his findings. The 2004 average current cost of debt of 5.26 percent is 29 basis points higher than the corresponding 2003 average of 4.97 percent.

V. The Cost Of Preferred Equity Capital In 2004

No preferred stock issues were outstanding at the end of 2004.

VI. The Overall Cost Of Capital In 2004

A. Determination of Market Value Weights

As calculated in Mr. Miller's Verified Statement, the market value of debt and common equity are \$29,269.2 million and \$46,836.2 million, respectively. The figure for the market value of debt includes market values of bonds, notes, debentures, equipment trust certificates, and conditional sales agreements. Other debt and capitalized leases are included at their book value,

because market values are difficult to determine (in some instances book values correspond to market values) and because these other instruments are a minimal portion of all railroad debt. Based on these calculations, the market value weights for debt and equity are 38.5 percent and 61.5 percent, respectively.

B. The Overall Cost of Capital

Multiplying the cost of debt, the cost of common equity capital, and the cost of preferred equity capital by their respective market value proportions results in a 2004 average overall cost of capital of 10.1 percent, as shown below (see Table 5):

Table No. 5
Weighted Current Cost of Capital

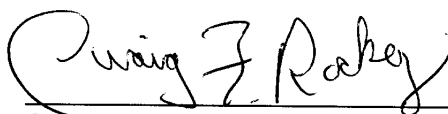
	Capital Structure Weight	Current Cost	Weighted Current Cost
Debt	38.5 %	5.26 %	2.025 %
Common Equity	61.5	13.16	8.093
Preferred Equity	0.0	n/a	n/a
Total	100.0		10.12
Weighted Current Cost of Capital			10.1 %

As mentioned in Section V, The Cost of Preferred Equity Capital in 2004, no preferred stock issues were outstanding at the end of 2004. Therefore, preferred equity capital is not included in the overall cost of capital.

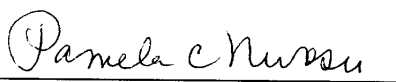
VERIFICATION

WASHINGTON, D.C.)
) SS.

I, Craig F. Rockey, being duly sworn, state that I have read the
foregoing statement, that I know its contents, and that those contents
are true as stated.


CRAIG F. ROCKEY

Subscribed and sworn to before me this 24th day of
March 2005.


Notary Public

My Commission expires:

My Commission Expires **2/14/07**

Appendix A

Discounted Cash Flow Model

The discounted cash flow (DCF) approach to the estimation of the cost of equity capital is similar to the method employed by an investor using fundamental analysis to value a common stock. The DCF approach estimates the firm's cost of equity capital as the rate that makes the discounted value of all future cash flows expected by investors equal to the current price of the firm's stock. The future cash flows expected by investors can be specified as a stream of expected dividends over a fixed investment horizon and the expected stock price at the end of that horizon.

The most familiar model used to derive the cost of equity capital is based on the simplifying assumption that the firm pays dividends annually and the next dividend is one year hence.

The subsequent analysis assumes that over a fixed investment horizon:

- a) the firm's cost of capital, k , is constant;
- b) the firm's annual dividends per share grow at a constant rate, g ;
- c) annual earnings per share grow at the same rate as annual dividends per share; and
- d) the firm's price-earnings multiple is constant.

Under assumption (a), the price of the firm's stock may be expressed as:

$$P_0 = \left[\sum_{t=1}^n \frac{D_t}{(1+k)^t} \right] + \frac{P_n}{1+k}$$

where:

- k = the firm's cost of equity capital;
- D_t = the firm's expected dividend t years hence,
- P_0 = the current price per share of the firm's stock, and
- g = the expected rate of growth in earnings and dividends over the investment horizon.

Under assumptions (b) and (c), the firm's dividend in year t is equal to:

$$2 \quad D_t = D_1(1+g)^{t-1}$$

where:

D_1 = the firm's expected dividend one year hence.

Substituting the right hand side of equation (2) for D_t in equation (1), the price of the firm's stock may be expressed as:

$$3 \quad P_0 = D_1 \left[\sum_{t=1}^{t=n} \frac{(1+g)^{t-1}}{(1+k)^t} \right] + \frac{P_n}{(1+k)^n}$$

Since the firm's expected price-earnings ratio n years from now has been assumed to equal its current price-earnings ratio, the price of the firm's stock would be expected to grow at the same rate as its earnings.

$$4 \quad P_n = P_0(1+g)^n$$

Recall that $P_n = \frac{P_n}{E_n} E_n (1+g_1)^n$ and $\frac{P_n}{E_n} = \frac{P_0}{E_0}$. The term in square brackets on the right hand side of equation (3) is a geometric progression which can be expressed as:

$$5 \quad \left[\sum_{t=1}^{t=n} \frac{(1+g)^{t-1}}{(1+k)^t} \right] = \left(\frac{1}{k-g} \right) \left[1 - \frac{(1+g)^n}{(1+k)^n} \right]$$

Combining equation (5) with equations (3) and (4), and rearranging, gives equation (6):

$$6 \quad P_0 \left[1 - \frac{(1+g)^n}{(1+k)^n} \right] = D_1 \left(\frac{1}{k-g} \right) \left[1 - \frac{(1+g)^n}{(1+k)^n} \right]$$

Canceling the term in square brackets on both sides of equation (6) and solving for the cost of equity capital, k , yields equation (7):

7

$$k = \frac{D_1}{P_0} + g$$

Although most firms pay quarterly dividends, the relation expressed by equation (7) is the formula most commonly used in the estimation of the firm's cost of equity capital. For the next yearly dividend term in equation (5), the Commission in Ex Parte No. 436 used an estimate of the sum of the next four expected quarterly dividends. It used the last quarter's annualized dividend rate times $(1 + 1/2 g)$.

Because railroads pay dividends quarterly, rather than annually, equation (7) gives a downward biased estimate of the cost of equity capital. Since there is a time value of money, quarterly dividends would be preferred by a shareholder to a single payment at year's end. The next three quarterly dividends would be worth $D_{11}(1+k)^{(3/4)}$, $D_{21}(1+k)^{(1/2)}$, and $D_{31}(1+k)^{(1/4)}$ dollars, respectively, when reinvested until year's end at the firm's cost of equity capital. The only difference between this model and the more familiar model that assumes annual dividends is the recognition of the value of receiving a dollar earlier rather than later. This assumption is implemented by modifying assumption (b), which did not explicitly specify the quarter-to-quarter growth rate of dividends, as follows:

- (b') The firm's quarterly dividends per share grow at a constant rate from one quarter to the corresponding quarter in the following year.

Assuming that the firm pays dividends quarterly, and that for the next n years earnings and dividends grow at a constant rate, g , the firm's first quarter dividend in year one, D_{11} , will be equal to its first quarter dividend in year zero times one plus the growth rate, *i.e.*, $D_{11} = D_{10}(1+g)$. In general, the dividend in a given quarter would be equal to the product of the corresponding quarter's dividend in the prior year and one plus the rate of growth, *i.e.*, $D_{1t} = D_{1t-1}(1+g)$, $D_{2t} = D_{2t-1}(1+g)$, $D_{3t} = D_{3t-1}(1+g)$, and $D_{4t} = D_{4t-1}(1+g)$. Under these conditions, the current market value of the firm's stock, P_0 , may be expressed as:

8

$$P_0 = \sum_{t=1}^n \sum_{q=1}^4 \frac{D_{qt}(1+g)^{t-1}}{(1+k)^{[t-(4-q)/4]}} + \frac{P_n}{(1+k)^n}$$

The first term on the right hand side of equation (8) is a finite geometric progression whose solution is:

$$\frac{\sum_{q=1}^4 D_{q1}(1+k)^{[(4-q)/4]}}{k-g} \left[1 - \frac{(1+g)^n}{(1+k)^n} \right]$$

Under the assumption that $\frac{P_n}{E_n} = \frac{P_0}{E_0}$, and $P_n = \frac{P_n}{E_n} [E_0(1+g)^n] = P_0(1+g)^n$, equation (6) reduces to:

$$9 \quad P_0 = \frac{D^*_{11}}{k-g}$$

where:

$$\begin{aligned} D^*_{11} &\equiv \sum_{q=1}^4 D_{q1}(1+k)^{[(4-q)/4]} \\ &= D_{11}(1+k)^{(3/4)} + D_{21}(1+k)^{(1/2)} + D_{31}(1+k)^{(1/4)} + D_{41} \\ &= D_{10}(1+k)^{(3/4)} + D_{20}(1+k)^{(1/2)} + D_{30}(1+k)^{(1/4)} + D_{40} \end{aligned}$$

Under the assumption that the firm pays quarterly dividends, the firm's cost of equity capital may be expressed as:

$$10 \quad k = \frac{D^*_{11}}{P_0} + g$$

For most firms, $D^*_{11} > D_0(1+g/2) = 4D_{40}(1+g/2)$. That is, $4D_{40}(1+g/2)$ is approximately equal to $(D_{10} + D_{20} + D_{30} + D_{40})(1+g)$, which is less than D^*_{11} , which equals $D_{10}(1+k) + D_{20}(1+k)^{(1/2)} + D_{30}(1+k)^{(1/4)} + D_{40}(1+g)$. Therefore, the Commission's procedure for estimating D_1 results in a slight understatement of the cost of equity capital.

Appendix B

IBES
Monthly Long-Term Growth Rates and Number of Analysts Estimates

Burlington Northern Santa Fe Corp.
2004

	Mean Estimate	High Estimate	Low Estimate	Number of Estimates
January	9.60	12.00	5.00	10
February	9.60	12.00	5.00	10
March	9.67	12.00	5.00	9
April	9.79	13.00	5.00	7
May	9.42	13.00	5.00	6
June	9.42	13.00	5.00	6
July	10.25	12.50	8.00	6
August	10.70	12.50	9.00	5
September	11.63	14.00	10.00	4
October	13.30	16.00	10.00	5
November	13.30	16.00	10.00	5
December	12.75	16.00	10.00	6

Source: I/B/E/S International Inc. 195 Broadway, New York, NY 10007

IBES
Monthly Long-Term Growth Rates and Number of Analysts Estimates

CSX Corporation
2004

	Mean Estimate	High Estimate	Low Estimate	Number of Estimates
January	12.00	17.00	7.00	10
February	12.00	17.00	7.00	10
March	11.67	17.00	7.00	9
April	11.57	17.00	7.00	7
May	11.50	17.00	7.00	6
June	11.50	17.00	7.00	6
July	12.40	17.00	8.00	5
August	13.00	17.00	10.00	3
September	12.25	17.00	10.00	4
October	12.80	17.00	10.00	5
November	11.75	15.00	10.00	4
December	13.00	18.00	10.00	5

Source: I/B/E/S International Inc. 195 Broadway, New York, NY 10007

IBES
Monthly Long-Term Growth Rates and Number of Analysts Estimates

Norfolk Southern Corporation
2004

	Mean Estimate	High Estimate	Low Estimate	Number of Estimates
January	12.36	30.00	6.00	11
February	12.36	30.00	6.00	11
March	10.60	16.00	6.00	10
April	11.40	15.00	6.00	5
May	10.50	15.00	6.00	4
June	12.50	16.00	6.00	4
July	12.33	16.00	10.00	6
August	12.33	16.00	10.00	6
September	12.33	16.00	10.00	6
October	14.25	17.00	10.00	4
November	14.10	17.00	10.00	5
December	14.42	17.00	10.00	6

Source: I/B/E/S International Inc. 195 Broadway, New York, NY 10007

IBES
Monthly Long-Term Growth Rates and Number of Analysts Estimates

Union Pacific Corporation
2004

	Mean Estimate	High Estimate	Low Estimate	Number of Estimates
January	11.65	16.00	7.00	10
February	11.75	15.00	7.00	10
March	11.39	15.00	7.00	9
April	9.38	15.00	0.00	8
May	10.50	13.00	7.00	6
June	10.50	13.00	7.00	6
July	10.43	13.00	7.00	7
August	10.43	13.00	7.00	7
September	10.20	13.00	7.00	5
October	10.67	13.00	7.00	6
November	10.67	13.00	7.00	6
December	10.67	13.00	7.00	6

Source: I/B/E/S International Inc. 195 Broadway, New York, NY 10007

Appendix C

IBES
Computation of Simple Average and Truncated Average

Burlington Northern Santa Fe Corp.
2004

	Mean Estimate	High Estimate	Low Estimate	Number of Estimates	Truncated Average
January	9.60	12.00	5.00	10	9.88
February	9.60	12.00	5.00	10	9.88
March	9.67	12.00	5.00	9	10.00
April	9.79	13.00	5.00	7	10.10
May	9.42	13.00	5.00	6	9.63
June	9.42	13.00	5.00	6	9.63
July	10.25	12.50	8.00	6	10.25
August	10.70	12.50	9.00	5	10.67
September	11.63	14.00	10.00	4	11.25
October	13.30	16.00	10.00	5	13.50
November	13.30	16.00	10.00	5	13.50
December	12.75	16.00	10.00	6	12.63
Simple Average	10.78				10.91

Source: I/B/E/S International Inc. 195 Broadway, New York, NY 10007

IBES
Computation of Simple Average and Truncated Average

CSX Corporation
2004

	Mean Estimate	High Estimate	Low Estimate	Number of Estimates	Truncated Average
January	12.00	17.00	7.00	10	12.00
February	12.00	17.00	7.00	10	12.00
March	11.67	17.00	7.00	9	11.57
April	11.57	17.00	7.00	7	11.40
May	11.50	17.00	7.00	6	11.25
June	11.50	17.00	7.00	6	11.25
July	12.40	17.00	8.00	5	12.33
August	13.00	17.00	10.00	3	12.00
September	12.25	17.00	10.00	4	11.00
October	12.80	17.00	10.00	5	12.33
November	11.75	15.00	10.00	4	11.00
December	13.00	18.00	10.00	5	12.33
Simple Average	12.12				11.71

Source: I/B/E/S International Inc. 195 Broadway, New York, NY 10007

IBES
Computation of Simple Average and Truncated Average

Norfolk Southern Corporation
2004

	Mean Estimate	High Estimate	Low Estimate	Number of Estimates	Truncated Average
January	12.36	30.00	6.00	11	11.11
February	12.36	30.00	6.00	11	11.11
March	10.60	16.00	6.00	10	10.50
April	11.40	15.00	6.00	5	12.00
May	10.50	15.00	6.00	4	10.50
June	12.50	16.00	6.00	4	14.00
July	12.33	16.00	10.00	6	12.00
August	12.33	16.00	10.00	6	12.00
September	12.33	16.00	10.00	6	12.00
October	14.25	17.00	10.00	4	15.00
November	14.10	17.00	10.00	5	14.50
December	14.42	17.00	10.00	6	14.88
Simple Average	12.46				12.47

Source: I/B/E/S International Inc. 195 Broadway, New York, NY 10007

IBES
Computation of Simple Average and Truncated Average

Union Pacific Corporation
2004

	Mean Estimate	High Estimate	Low Estimate	Number of Estimates	Truncated Average
January	11.65	16.00	7.00	10	11.69
February	11.75	15.00	7.00	10	11.94
March	11.39	15.00	7.00	9	11.50
April	9.38	15.00	0.00	8	10.00
May	10.50	13.00	7.00	6	10.75
June	10.50	13.00	7.00	6	10.75
July	10.43	13.00	7.00	7	10.60
August	10.43	13.00	7.00	7	10.60
September	10.20	13.00	7.00	5	10.33
October	10.67	13.00	7.00	6	11.00
November	10.67	13.00	7.00	6	11.00
December	10.67	13.00	7.00	6	11.00
Simple Average	10.69				10.93

Source: I/B/E/S International Inc. 195 Broadway, New York, NY 10007

Appendix D

QUALIFICATIONS OF CRAIG F. ROCKEY

My name is Craig F. Rockey. I am Vice President of Policy and Economics for the Association of American Railroads (AAR), with offices located at 50 F Street, N.W., Washington, D.C. 20001. Among other responsibilities, my duties include the collection, analysis, and presentation of economic data related to railroads and their economic environment. One of my principal duties is conducting and supervising economic, financial, statistical and cost studies dealing with various aspects of the rail industry.

During my employment with the AAR, I have presented testimony before the Surface Transportation Board/Interstate Commerce Commission, Public Service Commission of Indiana, New York Department of Transportation, Ohio Public Utilities Commission, Pennsylvania Public Utility Commission, the West Virginia Public Service Commission, and the Illinois Department of Revenue. I routinely prepare and provide rail industry economic, financial and cost data; oversee the creation of databases, publications, and reports; and evaluate regulatory, legislative, and internal issues.

Preceding my employment with the AAR in April 1978, I was Senior Associate with the Washington, D.C.-based economic consulting firm of Snavelly, King and Associates, Inc. In that capacity I was responsible for various feasibility studies, special reports, and submissions to federal, state, and private organizations.

I hold a Bachelor of Science degree in Transportation Economics for the University of Maryland and have undertaken related course work subsequently. I have articles published in transportation journals, have co-authored a book entitled *Small Railroads*, am a member of various professional organizations, and have consulted for railroads in Africa, Asia, and North America.

2

BEFORE THE
SURFACE TRANSPORTATION BOARD

EX PARTE NO. 558 (Sub-No. 8)

RAILROAD COST OF CAPITAL

2004

VERIFIED STATEMENT

OF

DAVID F. MILLER

DIRECTOR – ACCOUNTING & FINANCE

ASSOCIATION OF AMERICAN RAILROADS

March 25, 2005

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Qualifications Of David F. Miller

I. Introduction

My name is David F. Miller. I am Director – Accounting & Finance for the Policy and Economics Department of the Association of American Railroads (AAR), with offices at 50 F Street, NW; Washington, DC 20001. A summary of my qualifications and experience appears at the end of this statement.

The Policy and Economics Department of the AAR serves the railroad industry as a central agency for collection, analysis, and reporting of information regarding the financial and economic condition of the railroad industry.

In this proceeding, my statement addresses the computation of the railroad industry's 2004 (i) current cost of long term debt and preferred stock, (ii) market value of long term debt, preferred stock and equity, and (iii) the capital structure mix. I have presented similar testimony on behalf of the railroad industry in previous Cost of Capital proceedings before the Surface Transportation Board ("Board" or "STB"). In an accompanying verified statement, Craig F. Rockey, Vice President of the Association of American Railroads, estimates the cost of equity and the overall cost of capital of the composite railroad.

In preparing my statement, I relied on a number of data sources including, but not limited to, the R-1 Annual Reports to the STB, shareholders' annual reports, 10-Q and 10-K Reports to the Securities and Exchange Commission, the *Bond Guide* (a monthly publication of Standard & Poor's Corporation), and data provided directly by the railroads.

In Ex Parte No. 393 (Sub-No. 1), *Standards For Railroad Revenue Adequacy*, 3 I.C.C.2d 261 (1986), *aff'd sub nom Consolidated Rail Corporation v. United States*, 855 F.2d 78 (CA3 1988), the Board reaffirmed that the cost of capital is to be based upon the current cost of debt

and market value weights. My analysis in this proceeding is consistent with the Ex Parte No. 393 (Sub-No. 1) decision.

In addition, my analysis focuses upon railroads which met the sample criteria set forth in Ex Parte No. 558 (Sub-No. 8), *Railroad Cost of Capital — 2004* (order served December 20, 2004). As explained below, four railroad corporations met the criteria for inclusion in the sample: Burlington Northern Santa Fe Corporation, CSX Corporation, Norfolk Southern Corporation, and Union Pacific Corporation.

II. Findings

A. Debt

Based on my examination of existing bonds, notes, debentures, equipment trust certificates (ETCs), and conditional sales agreements (CSAs) issued by the four firms in the sample, I find:

- (1) The railroads' current cost of debt for 2004 was 5.26 percent, and
- (2) The current market value of debt for 2004 was \$29,269.2 million.

B. Preferred Stock

No preferred stock was outstanding in 2004.

C. Common Equity

Based on my examination of the number of common shares outstanding and monthly common stock prices for the sample railroads, I find:

The current market value of common equity for 2004 was \$46,836.2 million.

D. Capital Structure Weights

Based on my findings on the current market values of debt, preferred stock, and common equity capital, I have computed the following capital structure mix. The market-weighted capital structure for 2004 was:

Table No. 1
Market-Weighted Capital Structure

	Market Weight
Debt	38.5 %
Equity	61.5
Total	100.0

III. Concepts Used In Measuring Cost Of Capital

A. The Cost of Capital Concept

It is generally recognized that the cost of capital for a firm is the rate that must be earned in order to satisfy the combined rates of return required by the firm's investors. In other words, to compete effectively in the marketplace for investor funds, a corporation must offer competitive returns. To do otherwise would mean that investors will not supply funds to the corporation. From the investors' perspective, the cost of capital can be viewed as the "opportunity cost" of funds. In this situation, the opportunity cost of funds to be committed to an investment is the income foregone because the funds cannot be used elsewhere. The cost of capital concept as applied herein is a forward-looking concept that measures the opportunity cost of obtaining capital.

In the following section, I apply the cost of capital concept described above in ascertaining the current cost of debt and preferred stock.

E. Measurement of the Current Cost of Debt

The current cost of debt must be determined from the current market-determined yields on all debt outstanding. This approach is necessary, and in past Board Cost of Capital decisions¹ has been accepted as appropriate because:

- (1) there is a lack of new issues from which to develop a representative current cost;
- (2) the stated rate of interest/dividend payment to the investor is not always the same as the cost to the railroad. For example, when securities are issued, the total amount paid by investors is seldom received by the firm. Administrative fees, such as compensation paid to investment bankers, reduce the proceeds to the firm. The effect of this is to increase the cost of the securities to the firm; and
- (3) the maturity mix and the type of security (equipment trust certificates, conditional sales agreements, long-term debt) of new security issues may be different from the average of existing securities. Because of the effect that length of maturity and type of security has on its current cost, the use of only new issues would not accurately measure the current cost.

¹ Ex Parte Nos. 415, 436, 452, 458, 464, 466, 473, 478, 486, 491, 506, 513, 518, 523, 523 (Sub-No. 1), 558, 558 (Sub-No. 1), 558 (Sub-No. 2), 558 (Sub-No. 3), 558 (Sub-No. 4), 558 (Sub-No. 5), 558 (Sub-No. 6), and 558 (Sub-No. 7).

IV. The Railroad Sample

The Board's order establishing this proceeding sets forth specific criteria for the inclusion of a railroad in the sample base. There are five qualifications which each railroad must meet to be included. They are as follows:

- (1) The company is a Class I line-haul railroad.
- (2) If the Class I railroad is controlled by another company, the controlling company is primarily a railroad company and is not otherwise included in the study sample.
- (3) The company's bonds are rated at least BBB by Standard & Poor's and Baa by Moody's.
- (4) The company's stock is listed on either the New York or American Stock Exchange.
- (5) The company has paid dividends throughout 2004.

Appendix A shows the results of applying these criteria and the four railroad holding companies selected for inclusion in the sample. The four railroad corporations or holding companies are: Burlington Northern Santa Fe Corporation, CSX Corporation, Norfolk Southern Corporation, and Union Pacific Corporation. The 2004 sample is composed of the same railroad entities that were included in the 2003 sample.

V. Current Cost and Market Value Of Debt

A. Current Cost of Bonds, Notes, and Debentures

To determine the cost of bonds, notes and debentures, I have used information on bond prices and yields as published in Standard & Poor's monthly *Bond Guide*.² As in previous Cost of Capital determinations, I calculated the cost of bonds based on all bonds, notes, and debentures for the sample railroads which were publicly traded during the year at issue. The publicly traded bonds represent 74.3 percent of the market value of the bonds issued by the railroads in the sample.³

Appendix B details for each of the 63 bonds the (i) monthly yield and price data, (ii) average 2004 yield and price based on a simple average of the monthly data, and (iii) book value of debt outstanding. Appendix C summarizes the yield or cost of each railroad's debt, which, when weighted by the market value of the traded debt, determines the sample composite cost of bonds, notes and debentures of 5.10 percent.

Bi. Market Value of Bonds, Notes, and Debentures

Based on the identical methodology employed in previous Cost of Capital proceedings, the market value for bonds, notes, and debentures was computed using the average 2004 price for each traded bond. The average 2004 price was computed using the monthly bond price information for each bond from the *Bond Guide*.

² Standard & Poor's (S&P) *Bond Guide* provides monthly financial and statistical data on approximately 6,200 corporate bonds.

³ The only bonds not included in the *Bond Guide* are bonds that are not publicly traded. There is no practical way to obtain yields and prices for bonds which are privately held.

The 2004 market value for all outstanding bonds, notes, and debentures issued by the composite railroad (comprising 63 issues) is based on Appendix D, which displays for each bond the average traded price, if available from the *Bond Guide*, or the bond's "face" price. The traded prices represent what the investor is willing to pay for the bond in relation to its coupon and maturity date. For each traded bond, an average price was calculated based on the simple average of monthly prices. Where market prices were not available, I assumed them to be \$1,000, which means that investors would pay the "face value" on the bond. This assumption may slightly increase or decrease the market value of the particular issue depending upon the relationship of the instruments stated rate and the comparable market rate. However, this possible variation is not likely to significantly affect the overall estimate of the cost of debt capital because in this year 72.1 percent of the book value of bonds were priced at market.

The market values for bonds, notes, and debentures were derived by multiplying the average market price times the amount of debt outstanding as of December 31, 2004. Market value for bonds, notes, and debentures that traded was \$18,500.0 million (see Appendix C).

C. Equipment Trust Certificates

Equipment Trust Certificates (ETCs) are debt obligations which are secured by the particular equipment which is acquired with the instrument's proceeds. In the event of default, creditors may repossess and resell the equipment to pay off the debt obligations. Because ETCs are not actively traded in secondary markets, it is necessary to determine their cost by examining the return on other debt securities that are actively traded.

An ETC is generally serially issued. As such, each year during its life an equal amount (typically 1/15th) of the original amount must be retired. Consequently, an ETC may be thought

of as a series of individual annually-retiring bonds. In fact, when ETCs are issued, each of the maturities is sold independently from the others. A serially issued debt instrument provides an investor with the ability to purchase only the maturities that interest him. To correctly compute the composite yield on a serially issued bond, the internal rate of return on the bond's principal and interest payments must be calculated.

As mentioned earlier, ETCs are not actively traded and their cost must be estimated by comparing them to the yield on other debt. To compare ETCs to other debt instruments, I compiled the yields to maturity as detailed in Appendix E for government bills, notes, and bonds having approximately the same maturities. A government yield curve for these securities (see Appendix E) was prepared, which shows the relationship between the current costs, or yields to maturity, and maturity dates for government bonds (which, unlike ETCs, are actively traded in secondary markets).

These yield data have been adjusted by the Federal Reserve Board to reflect constant maturities. Thus, the data accurately reflect the 2004 relationships between yields and maturities.

After determining the yields to maturity for government bonds of maturities similar to those of an ETC, I adjusted those yields to reflect the riskiness of the ETC as compared to government bonds. In Cost of Capital filings prior to Ex Parte No. 486, *Railroad Cost of Capital — 1989*, yield spreads between government bonds and ETCs were based on the publication Analytical Record of Yields and Yield Spreads prepared by the Bond Market Research Department of Salomon Brothers, Inc. However, since 1988, Salomon Brothers no longer compiles yields and yield spreads for ETCs. Accordingly, identical to the methodology approved by the Board for application in Ex Parte No. 486 and subsequent proceedings, yields and yield spreads used in this

proceeding are based on new issues of ETCs by the sample railroads as compiled by the AAR.⁴ (Identical to the methodology used in Ex Parte 486 and prior proceedings, the Salomon Brothers compilation of yields and yield spreads on comparable industrial instruments were used as a proxy for ETCs of the same rating⁵ where there were no new ETC issues of a particular rating.)

However in 2004 no new ETCs were issued by the sample railroads. Therefore, an alternative method of estimating yield spreads between government bonds and ETCs was necessary. I believe that recent historical yield spreads can be used to determine the current cost of ETCs. Consequently, I have determined the yield spread between ETCs and government bonds using an average of the spreads (government vs. BBB ETCs) used in the 1998, 1999, and 2000 Cost of Capital proceedings. The average spread between government bonds and new BBB ETCs for that period was 114 basis points. The yield spread of 114 basis points for 2004 is the same as the 2003 yield spread.

The methodology used is the same as the method employed and approved in previous proceedings to measure yield spread for ETCs. These risk-adjusted yields provide the basis to value each ETC.

⁴ The only difference between the two methodologies is the specificity of the data base regarding the new issues. Salomon Brothers, Inc. included all new issues of ETCs (i.e., airlines, railroads, etc.) in computing yield spreads between government bonds and ETCs, while I had included only new issues of ETCs by the sample railroads in computing yield spreads between government bonds and ETCs. Use of new issues of ETCs by the sample railroads is necessarily representative of the cost of ETCs because it is all-inclusive and reflects the actual cost of new ETC issuance.

⁵ ETC's are rated by Standard & Poor's, a firm which specializes in analyzing and evaluating securities, according to the likelihood of a default by the railroad responsible to pay interest and to redeem the face value. The highest available rating, AAA, indicates the least risk of default. All other things being equal, investors will pay a higher price (or accept a lower yield) for a higher rated security than for a lower rated security.

Using formulae suggested by Standard Security Calculation Methods,⁶ I determined the market value of each maturity comprising an ETC. In effect, these formulae make it possible to determine the price investors would pay in 2004 for the contractual interest payments and price appreciation for holding the instrument. It is the best possible evidence as to the current cost of ETCs to the firm for the defined period. Computing the internal rate of return of the ETC prices and their associated cash flow streams established the current cost for ETCs. The weighted-average sum of all ETCs results in a current cost of 5.01 percent. The market value of all ETCs was \$1,246.6 million, as shown in Appendix H.

⁶The formulae used to value these bonds are standards of the security industry. They are:

For bonds with less than six months to maturity:

$$DP = \left[\frac{100 + C/2}{1 + DY/360} \right] - \left[\frac{C}{2} * \frac{(180 - D)}{180} \right]$$

For bonds with six months or longer to maturity:

$$DP = \left[\frac{100}{(1 + Y/2)_{\text{EXP}}(N - 1 + D/180)} \right] + \left[\sum_{k=1}^N \frac{C/2}{(1 + Y/2)_{\text{EXP}}(K - 1 + D/180)} \right] - \left[\frac{C/2(180 - D)}{180} \right]$$

Where: DP = Dollar price of the bond
C = Coupon rate as a percent per year
D = Number of days from settlement date to coupon date
Y = Yield to maturity as a decimal per year
EXP = Raise the term on the left to the power indicated by the term on the right
N = Whole number of coupons payable plus 13
K = Compute for K, values 1 to N and sum the results

D. Conditional Sales Agreements

Conditional Sales Agreements (CSAs) are another form of railroad financing that is treated by investors as debt securities because their interest obligations are essentially the same as interest obligations on ETCs. Like ETCs, CSAs are not generally traded in secondary markets. Accordingly, as in prior proceedings, I determined their current cost from current yields on government bonds, in a similar manner to ETCs.

In Cost of Capital proceedings prior to Ex Parte No. 486, *Railroad Cost of Capital — 1989*, yield spreads for CSAs were estimated using the yield on new issues of CSAs and the Salomon Brothers, Inc. publication *Analytical Record of Yield and Yield Spreads* to determine the yields and yield spreads between government bonds, ETCs, and CSAs of similar rating.

However in 2004, as in 1989–1996, there were no issues of CSAs by the sample railroads. Therefore, an alternative method of estimating yield spreads was required. I believe that historical yield spread data can be used to determine the current cost of CSAs. Consequently, I have determined the yield spread for CSAs with an A rating based on the yield-spread relationship between ETCs and CSAs issued in 1997 and used in the 1997–2003 Cost of Capital proceedings. This is the most practical and accurate method available for determining the cost of CSAs. This alternative method of estimating yield spreads has been used and approved in prior proceedings.

In 1997, a new CSA was issued, the first since 1987. The yield spread of the new CSA over ETCs in 1997 was 32 basis points. I have used that yield spread and added it to the current ETC yield spread over government bonds of 114 basis points to estimate a 2004 CSA yield spread of 146 basis points over government bonds. Using this methodology, the current cost of

CSAs is 5.39 percent. Using the same method as I used to compute the market value of ETCs, I determined the market value of CSAs to be \$101.3 million. The total market value for all outstanding CSAs is set forth in Appendix H.

E. Capital Leases and Miscellaneous Debt

Capital leases are contracts between two parties and as such take many forms.⁷ Since leases are not traded in the marketplace, their current cost is not directly observable. The lack of complete information with respect to leases necessitates that many assumptions be made to estimate their current cost and their values. While the cost of this form of debt is typically higher than that of more senior debt, I have elected to exclude computation of its specific cost from the overall cost of debt for the reasons stated above. For market value purposes, capital leases have been included at book value. This is the only practical option available.

Miscellaneous debt, such as commercial paper, demand deposits, and various instruments with extremely small amounts outstanding were also excluded from the current cost computations. The book value (assumed market value) of capital leases plus miscellaneous debt is \$3,013.3 million; as a percent of the total outstanding debt of the composite railroad, it is 11.1 percent. My treatment of capitalized leases and miscellaneous debt is the same approach accepted in prior Cost of Capital proceedings.

F. Flotation Costs On Debt Capital

When new debt is issued by a negotiated offering or a competitive bid, the issuing firm pays a fee to the investment banking firm or firms handling the offer. These fees, typically referred to as flotation costs, cover the banker's administrative costs in handling the sale (e.g.,

⁷ See generally 49 C.F.R. 1201, 2-20 for definitions.

sales costs, taxes, and profits). Flotation costs generally vary by type of security. For ETCs and CSAs the fees are extremely small, but costs increase as the administrative burden and underwriting risk increase (i.e., in order of increasing cost — ETCs and CSAs, bonds and notes, convertible bonds, and preferred stock and common stock). As discussed below, flotation costs directly reduce the gross proceeds available to the issuing firm.

An example helps to illustrate how flotation costs permanently increase the cost of debt to the railroad. If a railroad sells a 10-year bond with an annual coupon of 15 percent and investors are willing to pay \$98 for each \$100 in face value, the effective yield on the bond is 15.40 percent. Because the investment banker requires compensation (flotation costs) for his work, the railroad does not receive the full \$98 from the investors. If flotation costs reduce the net proceeds to say \$96, the effective cost to the railroad over the life of the bond is 15.82 percent. Therefore, flotation costs have increased the cost of debt from 15.40 to 15.82, or by 42 basis points. Proper accounting treatment requires the four dollars per \$100 ($\$100 - \96) to be amortized on a straight line basis over the life of the bond. In addition, the Uniform System of Accounts requires the annual amortization to be charged directly to Account No. 548, Amortization of Discount on Funded Debt, a fixed charge item. This results in fixed charges for the year totaling \$15.40 (\$15.00 coupon payment + amortization of \$0.20 discount + \$0.20 flotation costs). It is important to note that these flotation costs are not recovered through operating costs but are fixed charges each year during the life of the bond. Also, it is evident that in order to reflect the total current cost of debt, flotation costs must be included.

A regulated firm requires the opportunity to cover flotation costs before it will have an incentive to make future capital expenditures. Before creditors will lend their funds, they must be assured that the railroad will have the opportunity to earn returns sufficient to cover all costs.

Due to the low volume of railroad bonds, notes, and debentures issued during the last several years, current flotation costs cannot be accurately determined by relying on recent railroad-specific data. However, the SEC's most recent study of flotation costs⁸ provides data for 659 debt issues. It concludes that flotation costs as a percent of gross proceeds are 1.59 percent. On a 20-year bond, this equates to an increased yield of 0.16 percent. For purposes of measuring the flotation cost of bonds, I have used 0.16 percent.

Based on data supplied by Salomon Brothers, Inc. and the sample railroads, flotation costs for ETCs were computed. Appendix F summarizes flotation costs for ETCs issued between 1981–1997. A simple average of all issues from 1981 to 1997 results in an increase of the yield by 0.10 percent. These data are comparable to the findings of the Securities and Exchange Commission (SEC) using railroad ETC data for the years 1951, 1952 and 1955.⁹ In that study, the SEC determined that ETC flotation costs averaged 0.89 percent of gross proceeds. This SEC result equates to a 0.13 percent yield increase. For CSAs neither recent nor historical data are publicly available. I have therefore adopted a figure of 0.13 percent, which is the same flotation cost for CSAs used in previous Cost of Capital proceedings.

⁸ *Cost of Flotation of Registered Securities 1971-1972*, Securities and Exchange Commission, December 1974.

⁹ *Cost of Flotation of Corporate Securities 1951-1955*, Securities and Exchange Commission, June 1957.

To compute the overall effect of flotation cost on debt, the market value weight of the debt outstanding is multiplied by the respective flotation cost. As shown below (see Table 2), flotation costs increase the cost of debt by approximately 16 basis points (0.158 percentage points).

Table No. 2
Flotation Costs For Debt

Type of Debt	Market Weight	Current Cost	Weighted Cost of Debt
Flotation Costs			
Bonds, Notes & Debentures	93.21%	0.16%	0.149%
Equipment Trust Certificates	6.28%	0.13%	0.008%
Conditional Sales Agreements	0.51%	0.13%	0.001%
Total	100.0%		0.158%

VI. Summary: Composite Current Cost Of Debt

To determine the overall composite current cost of debt, I multiplied the cost of each category of debt times its market value proportion. Market values are properly used in this connection because they represent the amounts on which the current cost must be paid. This resulted in an overall current cost of debt for 2004 of 5.26 percent (see Appendix H), as computed below (see Table 3):

Table No. 3
Composite Current Cost Of Debt

Type of Debt	Market Weight	Current Cost	Weighted Cost of Debt
Bonds, Notes & Debentures	93.21%	5.103%	4.756%
Equipment Trust Certificates	6.28%	5.014%	0.315%
Conditional Sales Agreements	0.51%	5.391%	0.028%
Subtotal	100.0%		5.099%
Flotation Costs			0.158%
Weighted Cost of Debt			5.257%
Weighted Cost of Debt (Rounded)			5.26%

VII. Market Values Of Debt and Equity

As required by the Ex Parte No. 558 (Sub-No. 8) Notice, the market values of debt, preferred equity and common equity have been compiled to compute the 2004 capital structure of the railroad industry.

The market value of debt is computed by summing the component market values as shown in Appendix H. The 2004 market value of debt is \$29,269.2 million. The computation of the 2004 market value of equity as detailed in Appendix J is \$46,836.2 million.

The 2004 capital structure of the railroad composite is 38.5 percent debt and 61.5 percent common equity as indicated by the market values of debt and common equity. No preferred stock was outstanding in 2004. Therefore, there is no capital structure weight for preferred equity capital (see Table 4).

Table No. 4
2004 Composite Capital

	Structure	
	Millions	Weight
Debt	\$29,269.2	38.5 %
Common Equity	46,836.2	61.5
Preferred Equity	0.0	0.0
Total	\$76,105.4	100.0 %

Source: Appendices H and J.

Qualifications Of David F. Miller

I am Director – Accounting & Finance in the Policy and Economics Department of the Association of American Railroads with offices at 50 F Street, N.W.; Washington, D.C. 20001.

I received my degree of Bachelor of Arts in Accounting/Finance from the University of Maryland in 1967. In 1976, I received the degree of Master of Business Administration with concentration in Accounting from the George Washington University. Currently, I am a Certified Public Accountant licensed since 1976 in the State of Maryland. I also hold the following professional designations of (i) Certified Fraud Examiner (CFE) issued by the National Association of Certified Fraud Examiners, (ii) Certified Valuation Analyst issued by the National Association of Certified Valuation Analysts and (iii) Certified Rate of Return Analyst issued by The National Society of Rate of Return Analysts.

From 1974 until September 1986, I was employed by the consulting firm of R. L. Banks and Associates, Inc. as Senior Transportation Economist. At R. L. Banks and Associates, Inc., I conducted economic studies of the transit and railroad industries.

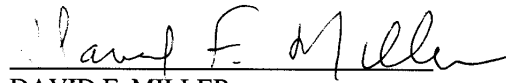
In addition to my consulting experience, I have taught at the college level during the period of 1976 to 2000. Currently, I am an Adjunct Associate Professor with the University of Maryland, and have taught courses in Auditing, Cost Accounting, Corporate Finance, and Investments. I am currently an active member in the Washington Chapter of Certified Fraud Examiners and a Vice President of the Maryland Chapter of Certified Valuation Analysts.

In the past I have testified and submitted verified statements in proceedings before the Surface Transportation Board, State of Delaware Chancery Court, and railroad industry arbitration panels.

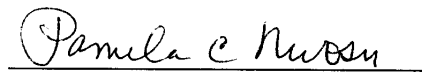
VERIFICATION

WASHINGTON, D.C.)
) SS.

I, David F. Miller, being duly sworn, state that I have read the
foregoing statement, that I know its contents, and that those contents
are true as stated.


DAVID F. MILLER

Subscribed and sworn to before me this 24th day of
March 2005.


Notary Public

My Commission expires:

My Commission Expires 2/14/07

Appendix A

**Evaluation of Class I Railroads
Under Surface Transportation Board Selection Criteria
2004**

Class I Railroad	Parent	Stock Symbol	Listed NYSE/ASE	Dividends Throughout 2004	Rail Assets Account For At Least 50% of Parent	Adequate Debt Rating
BNSF	Burlington Northern Santa Fe Corp.	BNI	Yes	Yes	Yes	Yes
CSX	CSX Corporation	CSX	Yes	Yes	Yes	Yes
CNGT*	Canadian National Railway Co.	CNI	Yes	Yes	No	Yes
KCS	Kansas City Southern	KSU	Yes	No	Yes	Yes
NS	Norfolk Southern Corporation	NSC	Yes	Yes	Yes	Yes
SOO*	Canadian Pacific Railway Limited	CP	Yes	No	No	Yes
UP	Union Pacific Corporation	UNP	Yes	Yes	Yes	Yes

* CNGT is Grand Trunk Corporation, and consists of most of the U.S. railroad operations of Canadian National Railway (CN). SOO is Soo Line Railroad, the western U.S. operations of Canadian Pacific Railway (CP). Following STB precedent, CN and Canadian Pacific were not included in the sample because both CN and CP are Canadian corporations – and the cost of capital proceeding is concerned with determining costs for U.S. railroads under STB jurisdiction.

Appendix B

Name: BNSF
Medium Term Note
Maturity: 7/15/2037
Coupon: 6.530 %
Amount Outstanding: \$170.100 million

Date	Price	Yield
01/31/2004	\$107.30	6.02 %
02/28/2004	108.97	5.91
03/31/2004	110.22	5.83
04/30/2004	102.74	6.33
05/31/2004	101.49	6.42
06/30/2004	102.05	6.38
07/31/2004	103.46	6.28
08/31/2004	107.42	6.01
09/30/2004	108.18	5.96
10/31/2004	108.50	5.94
11/30/2004	105.22	6.16
12/31/2004	108.06	5.97
Average	\$106.13	6.10 %

Source: Standard & Poor's *Bond Guide*

Name: BNSF
 Note
Maturity: 3/15/2009
Coupon: 6.125 %
Amount Outstanding: \$213.584 million

Date	Price	Yield
01/31/2004	\$109.64	4.02 %
02/28/2004	110.59	3.80
03/31/2004	111.29	3.61
04/30/2004	107.15	4.47
05/31/2004	106.03	4.70
06/30/2004	105.88	4.71
07/31/2004	106.22	4.61
08/31/2004	107.69	4.24
09/30/2004	108.69	3.98
10/31/2004	109.01	3.87
11/30/2004	107.26	4.25
12/31/2004	107.48	4.17
Average	\$108.08	4.20 %

Source: Standard & Poor's *Bond Guide*

Name: BNSF
 Note
Maturity: 4/17/2007
Coupon: 7.875 %
Amount Outstanding: \$311.346 million

Date	Price	Yield
01/31/2004	\$115.44	2.80 %
02/28/2004	115.42	2.71
03/31/2004	115.65	2.49
04/30/2004	112.82	3.29
05/31/2004	111.55	3.61
06/30/2004	111.11	3.65
07/31/2004	111.14	3.52
08/31/2004	111.64	3.21
09/30/2004	110.96	3.34
10/31/2004	110.90	3.23
11/30/2004	109.41	3.69
12/31/2004	109.10	3.68
Average	\$112.10	3.27 %

Source: Standard & Poor's *Bond Guide*

Name: BNSF
 Note
Maturity: 7/15/2011
Coupon: 6.750 %
Amount Outstanding: \$400.000 million

Date	Price	Yield
01/31/2004	\$114.17	4.49 %
02/28/2004	115.54	4.27
03/31/2004	116.82	4.06
04/30/2004	111.61	4.82
05/31/2004	109.88	5.08
06/30/2004	109.96	5.05
07/31/2004	110.83	4.89
08/31/2004	112.44	4.62
09/30/2004	112.31	4.62
10/31/2004	113.33	4.43
11/30/2004	112.26	4.58
12/31/2004	113.05	4.43
Average	\$112.68	4.61 %

Source: Standard & Poor's *Bond Guide*

Name: BNSF
Note
Maturity: 7/1/2012
Coupon: 5.900 %
Amount Outstanding: \$300.000 million

Date	Price	Yield
01/31/2004	\$108.25	4.70 %
02/28/2004	109.33	4.54
03/31/2004	110.41	4.38
04/30/2004	105.27	5.10
05/31/2004	103.89	5.30
06/30/2004	103.99	5.28
07/31/2004	105.04	5.12
08/31/2004	107.31	4.77
09/30/2004	107.63	4.71
10/31/2004	108.38	4.59
11/30/2004	107.12	4.77
12/31/2004	108.09	4.61
Average	\$107.06	4.82 %

Source: Standard & Poor's *Bond Guide*

Name: BNSF
 Note
Maturity: 7/1/2013
Coupon: 4.300 %
Amount Outstanding: \$250.000 million

Date	Price	Yield
01/31/2004	\$96.02	4.83 %
02/28/2004	97.29	4.66
03/31/2004	98.34	4.52
04/30/2004	93.50	5.20
05/31/2004	92.04	5.42
06/30/2004	92.24	5.40
07/31/2004	93.30	5.25
08/31/2004	95.52	4.93
09/30/2004	96.25	4.83
10/31/2004	96.82	4.75
11/30/2004	95.43	4.96
12/31/2004	96.88	4.75
Average	\$95.30	4.96 %

Source: Standard & Poor's *Bond Guide*

Name: BNSF
Debenture
Maturity: 12/15/2025
Coupon: 7.000 %
Amount Outstanding: \$350.000 million

Date	Price	Yield
01/31/2004	\$112.47	5.97 %
02/28/2004	114.18	5.84
03/31/2004	115.10	5.77
04/30/2004	108.19	6.30
05/31/2004	106.59	6.43
06/30/2004	107.06	6.39
07/31/2004	107.77	6.33
08/31/2004	111.66	6.02
09/30/2004	112.54	5.95
10/31/2004	113.83	5.85
11/30/2004	111.60	6.02
12/31/2004	114.96	5.76
Average	\$111.33	6.05 %

Source: Standard & Poor's *Bond Guide*

Name: BNSF
Debenture
Maturity: 2/15/2016
Coupon: 6.875 %
Amount Outstanding: \$175.000 million

Date	Price	Yield
01/31/2004	\$115.71	5.11 %
02/28/2004	117.30	4.94
03/31/2004	118.59	4.80
04/30/2004	111.15	5.57
05/31/2004	109.29	5.77
06/30/2004	109.60	5.73
07/31/2004	110.45	5.63
08/31/2004	114.03	5.23
09/30/2004	113.94	5.23
10/31/2004	114.70	5.14
11/30/2004	112.62	5.36
12/31/2004	115.27	5.06
Average	\$113.55	5.30 %

Source: Standard & Poor's *Bond Guide*

Name: BNSF
Debenture
Maturity: 6/1/2036
Coupon: 7.290 %
Amount Outstanding: \$200.000 million

Date	Price	Yield
01/31/2004	\$120.45	5.87 %
02/28/2004	122.54	5.75
03/31/2004	124.13	5.65
04/30/2004	116.63	6.10
05/31/2004	115.06	6.20
06/30/2004	115.44	6.18
07/31/2004	116.11	6.13
08/31/2004	119.39	5.93
09/30/2004	119.89	5.90
10/31/2004	121.29	5.81
11/30/2004	118.83	5.96
12/31/2004	122.44	5.74
Average	\$119.35	5.94 %

Source: Standard & Poor's *Bond Guide*

Name: BNSF
Debenture
Maturity: 8/1/2097
Coupon: 7.250 %
Amount Outstanding: \$200.000 million

Date	Price	Yield
01/31/2004	\$110.66	6.55 %
02/28/2004	112.71	6.43
03/31/2004	113.94	6.36
04/30/2004	105.50	6.87
05/31/2004	103.84	6.98
06/30/2004	106.44	6.81
07/31/2004	107.70	6.73
08/31/2004	112.18	6.46
09/30/2004	113.40	6.39
10/31/2004	115.19	6.29
11/30/2004	112.35	6.45
12/31/2004	116.86	6.20
Average	\$110.90	6.54 %

Source: Standard & Poor's *Bond Guide*

Name: BNSF
Debenture
Maturity: 12/1/2027
Coupon: 6.875 %
Amount Outstanding: \$200.000 million

Date	Price	Yield
01/31/2004	\$111.41	5.97 %
02/28/2004	113.19	5.84
03/31/2004	114.15	5.77
04/30/2004	107.00	6.30
05/31/2004	105.35	6.43
06/30/2004	105.84	6.39
07/31/2004	106.45	6.34
08/31/2004	110.07	6.06
09/30/2004	110.72	6.01
10/31/2004	112.06	5.91
11/30/2004	110.57	6.02
12/31/2004	114.07	5.76
Average	\$110.07	6.07 %

Source: Standard & Poor's *Bond Guide*

Name: BNSF
Debenture
Maturity: 8/1/2028
Coupon: 6.700 %
Amount Outstanding: \$200.000 million

Date	Price	Yield
01/31/2004	\$109.33	5.97 %
02/28/2004	111.10	5.84
03/31/2004	112.06	5.77
04/30/2004	104.92	6.30
05/31/2004	103.27	6.43
06/30/2004	103.77	6.39
07/31/2004	104.53	6.33
08/31/2004	108.02	6.06
09/30/2004	108.66	6.01
10/31/2004	110.00	5.91
11/30/2004	108.50	6.02
12/31/2004	112.03	5.76
Average	\$108.02	6.07 %

Source: Standard & Poor's *Bond Guide*

Name: BNSF
Debenture
Maturity: 3/15/2029
Coupon: 6.750 %
Amount Outstanding: \$200.000 million

Date	Price	Yield
01/31/2004	\$110.07	5.97 %
02/28/2004	111.89	5.84
03/31/2004	112.72	5.78
04/30/2004	105.60	6.30
05/31/2004	103.92	6.43
06/30/2004	104.42	6.39
07/31/2004	105.19	6.33
08/31/2004	108.75	6.06
09/30/2004	109.41	6.01
10/31/2004	110.76	5.91
11/30/2004	108.97	6.04
12/31/2004	112.54	5.78
Average	\$108.69	6.07 %

Source: Standard & Poor's *Bond Guide*

Name: BNSF
Debenture
Maturity: 5/13/2029
Coupon: 7.082 %
Amount Outstanding: \$200.000 million

Date	Price	Yield
01/31/2004	\$114.40	5.97 %
02/28/2004	116.26	5.84
03/31/2004	117.13	5.78
04/30/2004	109.78	6.30
05/31/2004	108.04	6.43
06/30/2004	108.55	6.39
07/31/2004	109.32	6.33
08/31/2004	112.99	6.06
09/30/2004	113.67	6.01
10/31/2004	115.07	5.91
11/30/2004	113.21	6.04
12/31/2004	116.89	5.78
Average	\$112.94	6.07 %

Source: Standard & Poor's *Bond Guide*

Name: BNSF
Debenture
Maturity: 4/17/2020
Coupon: 8.125 %
Amount Outstanding: \$200.000 million

Date	Price	Yield
01/31/2004	\$122.16	5.97 %
02/28/2004	123.64	5.84
03/31/2004	124.41	5.77
04/30/2004	118.54	6.27
05/31/2004	117.58	6.35
06/30/2004	118.66	6.25
07/31/2004	120.05	6.12
08/31/2004	124.20	5.75
09/30/2004	125.17	5.67
10/31/2004	126.96	5.51
11/30/2004	124.92	5.67
12/31/2004	130.14	5.23
Average	\$123.04	5.87 %

Source: Standard & Poor's *Bond Guide*

Name: BNSF
Debenture
Maturity: 8/15/2030
Coupon: 7.950 %
Amount Outstanding: \$275.000 million

Date	Price	Yield
01/31/2004	\$126.19	5.97 %
02/28/2004	128.24	5.84
03/31/2004	129.17	5.78
04/30/2004	121.04	6.30
05/31/2004	119.12	6.43
06/30/2004	119.67	6.39
07/31/2004	120.53	6.33
08/31/2004	124.40	6.07
09/30/2004	125.28	6.01
10/31/2004	126.81	5.91
11/30/2004	124.75	6.04
12/31/2004	128.64	5.79
Average	\$124.49	6.07 %

Source: Standard & Poor's *Bond Guide*

Name: Burlington Northern
Debenture SFP
Maturity: 2/25/2022
Coupon: 8.750 %
Amount Outstanding: \$200.000 million

Date	Price	Yield
01/31/2004	\$130.46	5.97 %
02/28/2004	132.12	5.84
03/31/2004	132.96	5.77
04/30/2004	125.98	6.30
05/31/2004	124.31	6.43
06/30/2004	124.73	6.39
07/31/2004	125.42	6.33
08/31/2004	128.75	6.06
09/30/2004	129.17	6.02
10/31/2004	130.37	5.92
11/30/2004	128.24	6.08
12/31/2004	134.27	5.61
Average	\$128.90	6.06 %

Source: Standard & Poor's *Bond Guide*

Name: Burlington Northern R.R.
 Mortgage Bond Series H
Maturity: 10/1/2006
Coupon: 9.250 %
Amount Outstanding: \$275.000 million

Date	Price	Yield
01/31/2004	\$115.00	3.33 %
02/28/2004	115.00	3.18
03/31/2004	115.00	2.98
04/30/2004	115.00	2.79
05/31/2004	109.00	5.12
06/30/2004	110.12	4.47
07/31/2004	110.56	4.10
08/31/2004	115.00	1.87
09/30/2004	112.25	2.91
10/31/2004	110.10	3.75
11/30/2004	110.75	3.17
12/31/2004	108.30	4.27
Average	\$112.17	3.50 %

Source: Standard & Poor's *Bond Guide*

Name: Burlington Northern R.R.
 Mortgage Bond Series K
Maturity: 1/1/2020
Coupon: 6.550 %
Amount Outstanding: \$3.978 million

Date	Price	Yield
01/31/2004	\$100.00	6.55 %
02/28/2004	100.00	6.55
03/31/2004	100.00	6.55
04/30/2004	103.49	6.20
05/31/2004	101.34	6.41
06/30/2004	101.87	6.36
07/31/2004	103.11	6.23
08/31/2004	105.24	6.02
09/30/2004	108.84	5.67
10/31/2004	108.66	5.69
11/30/2004	107.18	5.83
12/31/2004	106.92	5.85
Average	\$103.89	6.16 %

Source: Standard & Poor's *Bond Guide*

Name: Burlington Northern R.R.
Mortgage Bond Series L
Maturity: 1/1/2020
Coupon: 3.800 %
Amount Outstanding: \$6.195 million

Date	Price	Yield
01/31/2004	\$76.50	6.13 %
02/28/2004	78.00	5.97
03/31/2004	77.50	6.03
04/30/2004	76.00	6.22
05/31/2004	73.33	6.56
06/30/2004	73.88	6.50
07/31/2004	75.00	6.37
08/31/2004	77.37	6.09
09/30/2004	79.91	5.80
10/31/2004	77.62	6.08
11/30/2004	79.00	5.92
12/31/2004	80.25	5.79
Average	\$77.03	6.12 %

Source: Standard & Poor's *Bond Guide*

Name: Burlington Northern R.R.
 Mortgage Bond Series M
Maturity: 1/1/2045
Coupon: 3.200 %
Amount Outstanding: \$12.998 million

Date	Price	Yield
01/31/2004	\$52.00	6.61 %
02/28/2004	53.75	6.41
03/31/2004	55.50	6.21
04/30/2004	55.00	6.27
05/31/2004	53.75	6.41
06/30/2004	52.54	6.56
07/31/2004	52.00	6.63
08/31/2004	53.00	6.51
09/30/2004	55.00	6.28
10/31/2004	57.00	6.07
11/30/2004	54.00	6.40
12/31/2004	54.00	6.40
Average	\$53.96	6.40 %

Source: Standard & Poor's *Bond Guide*

Name: Burlington Northern R.R.
 Mortgage Bond Series N
Maturity: 1/1/2020
Coupon: 8.150 %
Amount Outstanding: \$2.506 million

Date	Price	Yield
01/31/2004	\$118.00	6.34 %
02/28/2004	127.30	5.54
03/31/2004	129.96	5.32
04/30/2004	120.88	6.07
05/31/2004	116.50	6.45
06/30/2004	116.50	6.45
07/31/2004	116.00	6.49
08/31/2004	116.50	6.44
09/30/2004	117.00	6.39
10/31/2004	117.00	6.38
11/30/2004	117.75	6.31
12/31/2004	119.00	6.19
Average	\$119.37	6.20 %

Source: Standard & Poor's *Bond Guide*

Name: Burlington Northern R.R.
Mortgage Bond Series O
Maturity: 1/1/2020
Coupon: 6.550 %
Amount Outstanding: \$15.378 million

Date	Price	Yield
01/31/2004	\$100.00	6.55 %
02/28/2004	104.50	6.10
03/31/2004	104.00	6.15
04/30/2004	103.49	6.20
05/31/2004	100.00	6.55
06/30/2004	100.00	6.55
07/31/2004	100.00	6.55
08/31/2004	100.00	6.55
09/30/2004	104.00	6.14
10/31/2004	104.00	6.14
11/30/2004	107.18	5.83
12/31/2004	107.00	5.84
Average	\$102.85	6.26 %

Source: Standard & Poor's *Bond Guide*

Name: Burlington Northern R.R.
Mortgage Bond Series P
Maturity: 1/1/2020
Coupon: 8.150 %
Amount Outstanding: \$5.566 million

Date	Price	Yield
01/31/2004	\$116.00	6.52 %
02/28/2004	126.67	5.59
03/31/2004	117.75	6.35
04/30/2004	120.22	6.12
05/31/2004	116.25	6.48
06/30/2004	118.11	6.30
07/31/2004	119.47	6.17
08/31/2004	116.25	6.46
09/30/2004	116.00	6.48
10/31/2004	125.40	5.64
11/30/2004	123.64	5.78
12/31/2004	119.50	6.14
Average	\$119.61	6.17 %

Source: Standard & Poor's *Bond Guide*

Name: Northern Pac.Ry.
 Mortgage Bond Part of BNSF
Maturity: 1/1/2047
Coupon: 3.000 %
Amount Outstanding: \$34.479 million

Date	Price	Yield
01/31/2004	\$71.00	4.54 %
02/28/2004	55.27	5.86
03/31/2004	69.00	4.68
04/30/2004	69.12	4.68
05/31/2004	50.97	6.34
06/30/2004	74.00	4.35
07/31/2004	74.00	4.35
08/31/2004	70.00	4.62
09/30/2004	75.50	4.25
10/31/2004	75.50	4.25
11/30/2004	90.00	3.45
12/31/2004	87.75	3.56
Average	\$71.84	4.58 %

Source: Standard & Poor's *Bond Guide*

Name: CSX Corporation
Debenture
Maturity: 8/15/2006
Coupon: 9.000 %
Amount Outstanding: \$300.000 million

Date	Price	Yield
01/31/2004	\$114.79	2.92 %
02/28/2004	115.60	2.44
03/31/2004	115.26	2.35
04/30/2004	112.92	3.11
05/31/2004	111.89	3.38
06/30/2004	111.11	3.52
07/31/2004	110.88	3.43
08/31/2004	110.99	3.15
09/30/2004	110.25	3.31
10/31/2004	109.96	3.23
11/30/2004	108.75	3.66
12/31/2004	108.30	3.68
Average	\$111.73	3.18 %

Source: Standard & Poor's *Bond Guide*

Name: CSX Corporation
Debenture
Maturity: 5/15/2022
Coupon: 8.625 %
Amount Outstanding: \$200.000 million

Date	Price	Yield
01/31/2004	\$127.31	6.12 %
02/28/2004	128.94	5.99
03/31/2004	130.19	5.89
04/30/2004	122.85	6.46
05/31/2004	121.35	6.58
06/30/2004	121.76	6.54
07/31/2004	122.67	6.46
08/31/2004	125.82	6.20
09/30/2004	126.63	6.13
10/31/2004	127.84	6.03
11/30/2004	125.75	6.19
12/31/2004	128.44	5.97
Average	\$125.80	6.21 %

Source: Standard & Poor's *Bond Guide*

Name: CSX Corporation
Debenture
Maturity: 9/15/2022
Coupon: 8.100 %
Amount Outstanding: \$150.000 million

Date	Price	Yield
01/31/2004	\$121.42	6.15 %
02/28/2004	123.03	6.02
03/31/2004	124.26	5.92
04/30/2004	117.11	6.49
05/31/2004	115.66	6.61
06/30/2004	116.08	6.57
07/31/2004	116.99	6.49
08/31/2004	120.08	6.23
09/30/2004	122.50	6.03
10/31/2004	123.70	5.93
11/30/2004	121.63	6.09
12/31/2004	123.81	5.91
Average	\$120.52	6.20 %

Source: Standard & Poor's *Bond Guide*

Name: CSX Corporation
Note
Maturity: 2/15/2006
Coupon: 2.750 %
Amount Outstanding: \$200.000 million

Date	Price	Yield
01/31/2004	\$100.00	2.75 %
02/28/2004	100.00	2.75
03/31/2004	100.00	2.75
04/30/2004	100.00	2.75
05/31/2004	99.30	3.17
06/30/2004	99.10	3.32
07/31/2004	99.23	3.26
08/31/2004	99.53	3.08
09/30/2004	99.73	2.95
10/31/2004	99.71	2.97
11/30/2004	99.18	3.44
12/31/2004	99.14	3.54
Average	\$99.58	3.06 %

Source: Standard & Poor's *Bond Guide*

Name: CSX Corporation
Note
Maturity: 10/15/2008
Coupon: 6.250 %
Amount Outstanding: \$400.000 million

Date	Price	Yield
01/31/2004	\$110.21	3.85 %
02/28/2004	111.21	3.60
03/31/2004	111.73	3.44
04/30/2004	107.85	4.30
05/31/2004	106.73	4.53
06/30/2004	106.68	4.52
07/31/2004	107.24	4.34
08/31/2004	108.53	3.98
09/30/2004	108.40	3.98
10/31/2004	108.86	3.82
11/30/2004	107.41	4.16
12/31/2004	107.81	4.00
Average	\$108.56	4.04 %

Source: Standard & Poor's *Bond Guide*

Name: CSX Corporation
Note
Maturity: 11/1/2009
Coupon: 4.875 %
Amount Outstanding: \$200.000 million

Date	Price	Yield
01/31/2004	\$103.85	4.11 %
02/28/2004	104.45	3.99
03/31/2004	105.26	3.82
04/30/2004	101.58	4.55
05/31/2004	100.55	4.76
06/30/2004	100.52	4.76
07/31/2004	101.03	4.65
08/31/2004	102.67	4.29
09/30/2004	102.83	4.25
10/31/2004	103.23	4.15
11/30/2004	101.50	4.53
12/31/2004	101.99	4.41
Average	\$102.46	4.36 %

Source: Standard & Poor's *Bond Guide*

Name: CSX Corporation
Note
Maturity: 3/15/2011
Coupon: 6.750 %
Amount Outstanding: \$500.000 million

Date	Price	Yield
01/31/2004	100.00	6.75 %
02/28/2004	100.00	6.75
03/31/2004	100.00	6.75
04/30/2004	100.00	6.75
05/31/2004	108.42	5.26
06/30/2004	108.46	5.24
07/31/2004	109.18	5.10
08/31/2004	110.72	4.82
09/30/2004	111.03	4.75
10/31/2004	112.34	4.50
11/30/2004	110.88	4.73
12/31/2004	111.92	4.52
Average	\$106.91	5.49 %

Source: Standard & Poor's *Bond Guide*

Name: CSX Corporation
Note
Maturity: 3/15/2012
Coupon: 6.300 %
Amount Outstanding: \$400.000 million

Date	Price	Yield
01/31/2004	\$109.55	4.86 %
02/28/2004	110.53	4.71
03/31/2004	111.65	4.54
04/30/2004	106.64	5.26
05/31/2004	104.93	5.51
06/30/2004	105.11	5.48
07/31/2004	106.09	5.32
08/31/2004	108.08	5.00
09/30/2004	108.94	4.86
10/31/2004	109.66	4.73
11/30/2004	108.17	4.95
12/31/2004	109.85	4.67
Average	\$108.27	4.99 %

Source: Standard & Poor's *Bond Guide*

Name: CSX Corporation
Note
Maturity: 2/15/2014
Coupon: 5.300 %
Amount Outstanding: \$200.000 million

Date	Price	Yield
01/31/2004	101.47	5.11 %
02/28/2004	102.64	4.96
03/31/2004	103.72	4.82
04/30/2004	98.27	5.53
05/31/2004	96.60	5.76
06/30/2004	96.92	5.72
07/31/2004	97.87	5.59
08/31/2004	100.51	5.23
09/30/2004	100.94	5.17
10/31/2004	102.12	5.01
11/30/2004	100.78	5.19
12/31/2004	102.75	4.92
Average	\$100.38	5.25 %

Source: Standard & Poor's *Bond Guide*

Name: CSX Corporation
Med.Term Note
Maturity: 12/1/2028
Coupon: 6.800 %
Amount Outstanding: \$200.000 million

Date	Price	Yield
01/31/2004	\$109.31	6.07 %
02/28/2004	110.81	5.96
03/31/2004	111.51	5.91
04/30/2004	103.95	6.48
05/31/2004	102.71	6.58
06/30/2004	102.96	6.55
07/31/2004	103.96	6.47
08/31/2004	107.42	6.20
09/30/2004	108.08	6.15
10/31/2004	109.43	6.05
11/30/2004	108.09	6.15
12/31/2004	111.30	5.91
Average	\$107.46	6.21 %

Source: Standard & Poor's *Bond Guide*

Name: Norfolk Southern
Med Term Note Series A
Maturity: 3/1/2021
Coupon: 9.000 %
Amount Outstanding: \$250.000 million

Date	Price	Yield
01/31/2004	\$132.02	5.98 %
02/28/2004	133.37	5.87
03/31/2004	134.50	5.78
04/30/2004	128.60	6.23
05/31/2004	126.40	6.41
06/30/2004	126.74	6.37
07/31/2004	127.58	6.30
08/31/2004	130.76	6.03
09/30/2004	131.47	5.97
10/31/2004	133.59	5.79
11/30/2004	132.28	5.89
12/31/2004	134.52	5.70
Average	\$130.99	6.03 %

Source: Standard & Poor's *Bond Guide*

Name: Norfolk Southern
Med Term Note Series A
Maturity: 9/15/2006
Coupon: 7.400 %
Amount Outstanding: \$100.000 million

Date	Price	Yield
01/31/2004	\$111.92	2.67 %
02/28/2004	112.16	2.45
03/31/2004	112.11	2.30
04/30/2004	110.01	3.00
05/31/2004	109.12	3.24
06/30/2004	108.53	3.35
07/31/2004	108.47	3.24
08/31/2004	108.77	2.93
09/30/2004	108.18	3.06
10/31/2004	107.99	2.99
11/30/2004	106.88	3.40
12/31/2004	106.50	3.44
Average	\$109.22	3.01 %

Source: Standard & Poor's *Bond Guide*

Name: Norfolk Southern
 Med Term Note Series A
Maturity: 9/15/2006
Coupon: 7.220 %
Amount Outstanding: \$100.000 million

Date	Price	Yield
01/31/2004	\$111.47	2.66 %
02/28/2004	111.72	2.45
03/31/2004	111.69	2.30
04/30/2004	109.60	3.00
05/31/2004	108.72	3.24
06/30/2004	108.15	3.35
07/31/2004	108.11	3.24
08/31/2004	108.42	2.93
09/30/2004	107.84	3.06
10/31/2004	107.66	2.99
11/30/2004	106.57	3.40
12/31/2004	106.20	3.44
Average	\$108.85	3.01 %

Source: Standard & Poor's *Bond Guide*

Name: Norfolk Southern
 Med Term Note Senior
Maturity: 4/15/2009
Coupon: 6.200 %
Amount Outstanding: \$400.000 million

Date	Price	Yield
01/31/2004	\$110.26	4.00 %
02/28/2004	111.85	3.64
03/31/2004	112.45	3.48
04/30/2004	108.38	4.30
05/31/2004	107.22	4.53
06/30/2004	107.06	4.54
07/31/2004	107.27	4.47
08/31/2004	108.77	4.09
09/30/2004	109.06	4.00
10/31/2004	109.48	3.86
11/30/2004	108.11	4.15
12/31/2004	108.33	4.06
Average	\$109.02	4.09 %

Source: Standard & Poor's *Bond Guide*

Name: Norfolk Southern
 Med Term Note Senior
Maturity: 5/15/2010
Coupon: 8.625 %
Amount Outstanding: \$300.000 million

Date	Price	Yield
01/31/2004	\$122.02	4.56 %
02/28/2004	122.47	4.45
03/31/2004	123.54	4.22
04/30/2004	118.66	5.01
05/31/2004	118.54	4.99
06/30/2004	119.17	4.83
07/31/2004	119.56	4.72
08/31/2004	120.80	4.45
09/30/2004	120.71	4.42
10/31/2004	121.03	4.32
11/30/2004	118.86	4.67
12/31/2004	120.42	4.32
Average	\$120.48	4.58 %

Source: Standard & Poor's *Bond Guide*

Name: Norfolk Southern
 Med Term Note Senior
Maturity: 2/15/2011
Coupon: 6.750 %
Amount Outstanding: \$300.000 million

Date	Price	Yield
01/31/2004	\$114.06	4.40 %
02/28/2004	115.09	4.23
03/31/2004	115.60	4.12
04/30/2004	111.03	4.82
05/31/2004	109.87	5.00
06/30/2004	109.35	5.06
07/31/2004	110.08	4.93
08/31/2004	111.72	4.63
09/30/2004	112.31	4.51
10/31/2004	113.08	4.35
11/30/2004	112.13	4.49
12/31/2004	112.69	4.36
Average	\$112.25	4.58 %

Source: Standard & Poor's *Bond Guide*

Name: Norfolk Southern
 Med Term Note Senior
Maturity: 2/15/2031
Coupon: 7.250 %
Amount Outstanding: \$700.000 million

Date	Price	Yield
01/31/2004	\$114.83	6.12 %
02/28/2004	117.80	5.92
03/31/2004	118.39	5.88
04/30/2004	110.69	6.41
05/31/2004	108.93	6.54
06/30/2004	109.74	6.48
07/31/2004	111.25	6.37
08/31/2004	115.22	6.08
09/30/2004	116.53	5.99
10/31/2004	118.31	5.87
11/30/2004	116.21	6.01
12/31/2004	119.96	5.76
Average	\$114.82	6.12 %

Source: Standard & Poor's *Bond Guide*

Name: Norfolk Southern
Med Term Note CR NSC 2007
Maturity: 5/15/2007
Coupon: 7.350 %
Amount Outstanding: \$340.325 million

Date	Price	Yield
01/31/2004	\$113.10	3.13 %
02/28/2004	113.87	2.81
03/31/2004	113.93	2.67
04/30/2004	111.13	3.46
05/31/2004	109.92	3.78
06/30/2004	109.58	3.80
07/31/2004	109.58	3.70
08/31/2004	110.08	3.41
09/30/2004	109.38	3.57
10/31/2004	109.30	3.50
11/30/2004	107.85	3.96
12/31/2004	108.23	3.69
Average	\$110.50	3.46 %

Source: Standard & Poor's *Bond Guide*

Name: Norfolk Southern
Med Term Note CR NSC 2017
Maturity: 5/15/2017
Coupon: 7.700 %
Amount Outstanding: \$550.000 million

Date	Price	Yield
01/31/2004	\$121.16	5.44 %
02/28/2004	123.43	5.22
03/31/2004	124.95	5.07
04/30/2004	117.50	5.77
05/31/2004	115.74	5.94
06/30/2004	115.85	5.92
07/31/2004	117.16	5.78
08/31/2004	120.62	5.43
09/30/2004	120.83	5.40
10/31/2004	122.60	5.22
11/30/2004	121.05	5.36
12/31/2004	122.78	5.18
Average	\$120.31	5.48 %

Source: Standard & Poor's *Bond Guide*

Name: Norfolk Southern
Med Term Note CR NSC 2027
Maturity: 5/15/2027
Coupon: 7.800 %
Amount Outstanding: \$800.000 million

Date	Price	Yield
01/31/2004	\$121.64	6.05 %
02/28/2004	122.92	5.96
03/31/2004	123.48	5.92
04/30/2004	115.93	6.46
05/31/2004	114.73	6.55
06/30/2004	115.89	6.46
07/31/2004	116.68	6.40
08/31/2004	120.91	6.09
09/30/2004	122.30	5.99
10/31/2004	123.72	5.89
11/30/2004	121.55	6.03
12/31/2004	125.25	5.77
Average	\$120.42	6.13 %

Source: Standard & Poor's *Bond Guide*

Name: Norfolk Southern
Med Term Note CR NSC 2037
Maturity: 5/1/2037
Coupon: 7.050 %
Amount Outstanding: \$716.600 million

Date	Price	Yield
01/31/2004	\$112.43	6.17 %
02/28/2004	114.13	6.06
03/31/2004	114.74	6.02
04/30/2004	106.97	6.53
05/31/2004	105.61	6.63
06/30/2004	105.94	6.60
07/31/2004	108.05	6.46
08/31/2004	111.77	6.20
09/30/2004	113.04	6.12
10/31/2004	115.33	5.98
11/30/2004	114.25	6.04
12/31/2004	116.92	5.87
Average	\$111.60	6.22 %

Source: Standard & Poor's *Bond Guide*

Name: Norfolk Southern
 Med Term Note CR NSC 2097
Maturity: 5/15/2097
Coupon: 7.900 %
Amount Outstanding: \$350.000 million

Date	Price	Yield
01/31/2004	\$120.17	6.57 %
02/28/2004	122.21	6.46
03/31/2004	124.13	6.36
04/30/2004	115.12	6.86
05/31/2004	113.31	6.97
06/30/2004	114.45	6.90
07/31/2004	115.78	6.82
08/31/2004	120.54	6.55
09/30/2004	121.84	6.48
10/31/2004	126.50	6.24
11/30/2004	121.66	6.49
12/31/2004	125.30	6.30
Average	\$120.08	6.58 %

Source: Standard & Poor's *Bond Guide*

Name: Union Pacific Corp.
 Debenture New 5/4/04 Pro 8/12 246.196
Maturity: 5/1/2034
Coupon: 6.250 %
Amount Outstanding: \$164.131 million

Date	Price	Yield
01/31/2004		%
02/28/2004		
03/31/2004		
04/30/2004		
05/31/2004	100.00	6.25 Not Traded
06/30/2004	100.00	6.25 Not Traded
07/31/2004	100.00	6.25 Not Traded
08/31/2004	100.00	6.25 Not Traded
09/30/2004	103.01	6.03
10/31/2004	104.43	5.93
11/30/2004	103.00	6.03
12/31/2004	106.44	5.79
Average	\$102.11	6.10 %

Source: Standard & Poor's *Bond Guide*

Name: Union Pacific Corp.
Debenture
Maturity: 2/1/2029
Coupon: 6.625 %
Amount Outstanding: \$594.675 million

Date	Price	Yield
01/31/2004	\$109.69	5.88 %
02/28/2004	110.76	5.80
03/31/2004	111.41	5.75
04/30/2004	104.32	6.28
05/31/2004	102.26	6.44
06/30/2004	102.73	6.40
07/31/2004	103.20	6.36
08/31/2004	106.91	6.08
09/30/2004	107.80	6.01
10/31/2004	109.51	5.88
11/30/2004	107.44	6.03
12/31/2004	111.08	5.77
Average	\$107.26	6.06 %

Source: Standard & Poor's *Bond Guide*

Name: Union Pacific Corp.
Debenture
Maturity: 2/1/2016
Coupon: 7.000 %
Amount Outstanding: \$249.380 million

Date	Price	Yield
01/31/2004	\$115.90	5.20 %
02/28/2004	116.63	5.12
03/31/2004	118.16	4.95
04/30/2004	111.95	5.60
05/31/2004	110.21	5.78
06/30/2004	110.66	5.73
07/31/2004	111.73	5.60
08/31/2004	114.63	5.28
09/30/2004	114.77	5.25
10/31/2004	115.66	5.15
11/30/2004	113.80	5.34
12/31/2004	115.77	5.12
Average	\$114.16	5.34 %

Source: Standard & Poor's *Bond Guide*

Name: Union Pacific Corp.
Debenture
Maturity: 2/1/2028
Coupon: 7.125 %
Amount Outstanding: \$247.768 million

Date	Price	Yield
01/31/2004	\$114.35	5.99 %
02/28/2004	115.83	5.88
03/31/2004	116.91	5.81
04/30/2004	109.98	6.31
05/31/2004	108.25	6.44
06/30/2004	108.72	6.40
07/31/2004	109.46	6.34
08/31/2004	112.98	6.08
09/30/2004	113.60	6.03
10/31/2004	114.92	5.93
11/30/2004	112.14	6.13
12/31/2004	114.67	5.95
Average	\$112.65	6.11 %

Source: Standard & Poor's *Bond Guide*

Name: Union Pacific Corp.
Debenture SF \$275
Maturity: 5/1/2025
Coupon: 8.350 %
Amount Outstanding: \$112.415 million

Date	Price	Yield
01/31/2004	\$110.34	7.38 %
02/28/2004	110.05	7.40
03/31/2004	109.98	7.41
04/30/2004	109.08	7.49
05/31/2004	108.46	7.54
06/30/2004	108.31	7.55
07/31/2004	107.90	7.59
08/31/2004	107.70	7.60
09/30/2004	106.96	7.67
10/31/2004	106.51	7.71
11/30/2004	105.96	7.76
12/31/2004	105.55	7.80
Average	\$108.07	7.58 %

Source: Standard & Poor's *Bond Guide*

Name: Union Pacific Corp.
 Note
Maturity: 2/15/2009
Coupon: 3.875 %
Amount Outstanding: \$249.505 million

Date	Price	Yield
01/31/2004	\$99.84	3.91 %
02/28/2004	101.09	3.63
03/31/2004	101.64	3.50
04/30/2004	98.27	4.28
05/31/2004	97.21	4.54
06/30/2004	97.21	4.55
07/31/2004	97.60	4.46
08/31/2004	99.30	4.05
09/30/2004	99.50	4.00
10/31/2004	99.89	3.90
11/30/2004	98.74	4.20
12/31/2004	99.28	4.07
Average	\$99.13	4.09 %

Source: Standard & Poor's *Bond Guide*

Name: Union Pacific Corp.
 Note
Maturity: 10/15/2007
Coupon: 5.750 %
Amount Outstanding: \$345.299 million

Date	Price	Yield
01/31/2004	\$107.68	3.52 %
02/28/2004	109.14	3.07
03/31/2004	109.63	2.87
04/30/2004	106.74	3.66
05/31/2004	105.57	3.97
06/30/2004	105.19	4.05
07/31/2004	105.87	3.79
08/31/2004	106.61	3.49
09/30/2004	106.20	3.58
10/31/2004	106.38	3.46
11/30/2004	105.02	3.88
12/31/2004	105.22	3.76
Average	\$106.60	3.59 %

Source: Standard & Poor's *Bond Guide*

Name: Union Pacific Corp.
 Note
Maturity: 1/15/2012
Coupon: 6.125 %
Amount Outstanding: \$298.503 million

Date	Price	Yield
01/31/2004	\$109.72	4.65 %
02/28/2004	110.73	4.49
03/31/2004	111.68	4.34
04/30/2004	106.93	5.03
05/31/2004	105.11	5.30
06/30/2004	105.29	5.26
07/31/2004	106.20	5.11
08/31/2004	108.01	4.82
09/30/2004	108.01	4.81
10/31/2004	109.13	4.62
11/30/2004	108.13	4.76
12/31/2004	109.98	4.46
Average	\$108.24	4.80 %

Source: Standard & Poor's *Bond Guide*

Name: Union Pacific Corp.
 Note
Maturity: 2/1/2006
Coupon: 6.400 %
Amount Outstanding: \$249.993 million

Date	Price	Yield
01/31/2004	\$107.52	2.52 %
02/28/2004	107.69	2.29
03/31/2004	107.53	2.18
04/30/2004	106.18	2.76
05/31/2004	105.57	2.96
06/30/2004	105.06	3.10
07/31/2004	104.92	3.02
08/31/2004	104.90	2.84
09/30/2004	104.31	3.07
10/31/2004	104.02	3.10
11/30/2004	103.22	3.56
12/31/2004	103.25	3.32
Average	\$105.35	2.89 %

Source: Standard & Poor's *Bond Guide*

Name: Union Pacific Corp.
Note
Maturity: 4/15/2012
Coupon: 6.500 %
Amount Outstanding: \$327.138 million

Date	Price	Yield
01/31/2004	\$112.18	4.69 %
02/28/2004	113.31	4.52
03/31/2004	114.33	4.37
04/30/2004	109.44	5.04
05/31/2004	107.57	5.31
06/30/2004	107.68	5.28
07/31/2004	108.13	5.20
08/31/2004	110.52	4.83
09/30/2004	110.80	4.78
10/31/2004	111.59	4.64
11/30/2004	110.58	4.78
12/31/2004	111.37	4.64
Average	\$110.63	4.84 %

Source: Standard & Poor's *Bond Guide*

Name: Union Pacific Corp.
Note
Maturity: 2/1/2008
Coupon: 6.625 %
Amount Outstanding: \$299.585 million

Date	Price	Yield
01/31/2004	\$111.07	3.63 %
02/28/2004	111.04	3.58
03/31/2004	112.77	3.07
04/30/2004	109.57	3.86
05/31/2004	108.73	4.04
06/30/2004	108.73	3.99
07/31/2004	108.28	4.06
08/31/2004	109.05	3.77
09/30/2004	108.84	3.78
10/31/2004	109.23	3.59
11/30/2004	107.45	4.09
12/31/2004	108.64	3.63
Average	\$109.45	3.76 %

Source: Standard & Poor's *Bond Guide*

Name: Union Pacific Corp.
 Note
Maturity: 1/15/2011
Coupon: 6.650 %
Amount Outstanding: \$398.673 million

Date	Price	Yield
01/31/2004	\$113.93	4.31 %
02/28/2004	114.31	4.23
03/31/2004	114.84	4.12
04/30/2004	110.28	4.83
05/31/2004	108.63	5.10
06/30/2004	109.22	4.98
07/31/2004	109.85	4.85
08/31/2004	111.25	4.59
09/30/2004	111.15	4.59
10/31/2004	112.21	4.38
11/30/2004	110.90	4.59
12/31/2004	111.80	4.40
Average	\$111.53	4.58 %

Source: Standard & Poor's *Bond Guide*

Name: Union Pacific Corp.
 Note
Maturity: 12/1/2006
Coupon: 6.700 %
Amount Outstanding: \$256.750 million

Date	Price	Yield
01/31/2004	\$110.94	2.67 %
02/28/2004	111.44	2.39
03/31/2004	111.79	2.12
04/30/2004	109.69	2.79
05/31/2004	107.81	3.42
06/30/2004	107.32	3.52
07/31/2004	107.32	3.41
08/31/2004	107.70	3.12
09/30/2004	107.09	3.28
10/31/2004	107.00	3.20
11/30/2004	105.97	3.58
12/31/2004	105.71	3.58
Average	\$108.32	3.09 %

Source: Standard & Poor's *Bond Guide*

Name: Union Pacific Corp.
 Note
Maturity: 11/1/2008
Coupon: 7.250 %
Amount Outstanding: \$249.922 million

Date	Price	Yield
01/31/2004	\$113.86	4.01 %
02/28/2004	115.02	3.72
03/31/2004	115.52	3.55
04/30/2004	111.60	4.38
05/31/2004	110.47	4.60
06/30/2004	110.38	4.58
07/31/2004	110.98	4.39
08/31/2004	112.27	4.02
09/30/2004	111.82	4.08
10/31/2004	111.92	4.00
11/30/2004	110.38	4.34
12/31/2004	111.55	3.97
Average	\$112.15	4.14 %

Source: Standard & Poor's *Bond Guide*

Name: Union Pacific Corp.
Note
Maturity: 9/15/2009
Coupon: 7.375 %
Amount Outstanding: \$149.721 million

Date	Price	Yield
01/31/2004	\$116.58	4.05 %
02/28/2004	117.47	3.85
03/31/2004	118.24	3.65
04/30/2004	113.81	4.45
05/31/2004	112.68	4.64
06/30/2004	112.88	4.57
07/31/2004	113.03	4.50
08/31/2004	114.70	4.11
09/30/2004	114.27	4.16
10/31/2004	114.43	4.08
11/30/2004	112.76	4.39
12/31/2004	112.93	4.31
Average	\$114.48	4.23 %

Source: Standard & Poor's *Bond Guide*

Name: Union Pacific Corp.
 Note, Med. Term Series E
Maturity: 11/9/2007
Coupon: 6.790 %
Amount Outstanding: \$300.000 million

Date	Price	Yield
01/31/2004	\$111.90	3.40 %
02/28/2004	112.87	3.08
03/31/2004	113.40	2.85
04/30/2004	110.53	3.58
05/31/2004	109.32	3.87
06/30/2004	108.87	3.94
07/31/2004	108.85	3.88
08/31/2004	109.55	3.59
09/30/2004	108.92	3.72
10/31/2004	108.88	3.66
11/30/2004	107.43	4.08
12/31/2004	107.58	3.95
Average	\$109.84	3.63 %

Source: Standard & Poor's *Bond Guide*

Appendix C

**Traded Bonds, Notes and Debentures
Summary for the Year Ending 2004**

Railroad	Market Value (\$mil)	Current Cost
BNI	\$4,919.693	5.320%
CSX	2,989.200	4.848%
NSC	5,704.685	5.452%
UNP	4,886.391	4.634%
Total	\$18,499.969	
Weighted Average		5.103%

Notes

Market value and current cost includes debt issued during year.

Detail on market value and current cost in Appendix D.

Flotation costs are excluded.

Appendix D

Page 1 - Traded Bonds

		Outstandg Amt (\$mill)	Coupon	Maturity	Avg Price	Priced Mkt Val.	Avg Yield	Interest Cost
1 BNSF	Medium Term Note	170.100	6.530	7/15/2037	106.13	180.527	6.10	11.012
2 BNSF	Note	213.584	6.125	3/15/2009	108.08	230.842	4.20	9.695
3 BNSF	Note	311.346	7.875	4/17/2007	112.10	349.019	3.27	11.413
4 BNSF	Note	400.000	6.750	7/15/2011	112.68	450.720	4.61	20.778
5 BNSF	Note	300.000	5.900	7/1/2012	107.06	321.180	4.82	15.481
6 BNSF	Note	250.000	4.300	7/1/2013	95.30	238.250	4.96	11.817
7 BNSF	Debenture	350.000	7.000	12/15/2025	111.33	389.655	6.05	23.574
8 BNSF	Debenture	175.000	6.875	2/15/2016	113.55	198.713	5.30	10.532
9 BNSF	Debenture	200.000	7.290	6/1/2036	119.35	238.700	5.94	14.179
10 BNSF	Debenture	200.000	7.250	8/1/2097	110.90	221.800	6.54	14.506
11 BNSF	Debenture	200.000	6.875	12/1/2027	110.07	220.140	6.07	13.362
12 BNSF	Debenture	200.000	6.700	8/1/2028	108.02	216.040	6.07	13.114
13 BNSF	Debenture	200.000	6.750	3/15/2029	108.69	217.380	6.07	13.195
14 BNSF	Debenture	200.000	7.082	5/13/2029	112.94	225.880	6.07	13.711
15 BNSF	Debenture	200.000	8.125	4/17/2020	123.04	246.080	5.87	14.445
16 BNSF	Debenture	275.000	7.950	8/15/2030	124.49	342.348	6.07	20.780
17 Burlington Northern Debenture	SFP	200.000	8.750	2/25/2022	128.90	257.800	6.06	15.623
18 Burlington Northern Mortgage Bond	Series H	275.000	9.250	10/1/2006	112.17	308.468	3.50	10.796
19 Burlington Northern Mortgage Bond	Series K	3.978	6.550	1/1/2020	103.89	4.133	6.16	0.255
20 Burlington Northern Mortgage Bond	Series L	6.195	3.800	1/1/2020	77.03	4.772	6.12	0.292
21 Burlington Northern Mortgage Bond	Series M	12.998	3.200	1/1/2045	53.96	7.014	6.40	0.449
22 Burlington Northern Mortgage Bond	Series N	2.506	8.150	1/1/2020	119.37	2.991	6.20	0.185
23 Burlington Northern Mortgage Bond	Series O	15.378	6.550	1/1/2020	102.85	15.816	6.26	0.990
24 Burlington Northern Mortgage Bond	Series P	5.566	8.150	1/1/2020	119.61	6.657	6.17	0.411
25 Northern Pac.Ry. Mortgage Bond	Part of BNSF	34.479	3.000	1/1/2047	71.84	24.770	4.58	1.134
Total		\$4,401.130				\$4,919.693	5.320%	\$261.730

Note:

Appendix B contains detail on traded bonds.

Page 2 - Bonds Not Traded

			Outstandg Amt (\$mil)	Coupon	Maturity	Avg Price	Mkt. Value at Book
1 BNSF	Notes		300.500	7.125	12/15/2010	100.000	300.500
2 BNSF	Notes	New Prorate 1.5/12 \$250	31.250	4.875	1/15/2015	100.000	31.250
3 BN	Notes	WA St. DOT	0.243		10/1/2011	100.000	0.243
4 BNSF Rwy	Income Debenture	San Francisco	8.025	5.000	1/1/2006	100.000	8.025
5 BNSF Rwy	Mortgage Bond	GOB	23.000	10.320	1/1/2014	100.000	23.000
6 BNSF Rwy	Mortgage Bond	Empire of America	3.938	8.625	10/1/2008	100.000	3.938
7 BNSF Rwy	Mortgage Bond	Lin. Nat. Life	4.639	8.625	8/1/2009	100.000	4.639
8 BNSF Rwy	Financing Ob.	Joliet Arsenal	138.231	6.967	var	100.000	138.231
9 BNSF Rwy	Financing Ob.	Amory	15.100		1/1/2028	100.000	15.100
Total			\$524.926				\$524.926

Page 1 - Traded Bonds									
		Outstandg Amt (\$mil)	Coupon	Maturity	Avg Price	Priced Mkt Val.	Avg Yield	Interest Cost	
1	CSX Corporation Debenture	300.000	9.000	8/15/2006	111.73	335.190	3.18	10.659	
2	CSX Corporation Debenture	200.000	8.625	5/15/2022	125.80	251.600	6.21	15.624	
3	CSX Corporation Debenture	150.000	8.100	9/15/2022	120.52	180.780	6.20	11.208	
4	CSX Corporation Note	200.000	2.750	2/15/2006	99.58	199.160	3.06	6.094	
5	CSX Corporation Note	400.000	6.250	10/15/2008	108.56	434.240	4.04	17.543	
6	CSX Corporation Note	200.000	4.875	11/1/2009	102.46	204.920	4.36	8.935	
7	CSX Corporation Note	500.000	6.750	3/15/2011	106.91	534.550	5.49	29.347	
8	CSX Corporation Note	400.000	6.300	3/15/2012	108.27	433.080	4.99	21.611	
9	CSX Corporation Note	200.000	5.300	2/15/2014	100.38	200.760	5.25	10.540	
10	CSX Corporation Med.Term Note	200.000	6.800	12/1/2028	107.46	214.920	6.21	13.347	
Total		\$2,750.000				\$2,989.200	4.848%	\$144.908	

\$3,429.795

\$3,429.795

Page 1 - Traded Bonds											
					Outstanding Amt (\$mil)	Coupon	Maturity	Avg Price	Priced Mkt Val.	Avg Yield	Interest Cost
1	Norfolk Southern	Med Term Note	Series A		250.000	9.000	3/1/2021	130.99	327.475	6.03	19.747
2	Norfolk Southern	Med Term Note	Series A		100.000	7.400	9/15/2006	109.22	109.220	3.01	3.288
3	Norfolk Southern	Med Term Note	Series A		100.000	7.220	9/15/2006	108.85	108.850	3.01	3.276
4	Norfolk Southern	Med Term Note	Senior		400.000	6.200	4/15/2009	109.02	436.080	4.09	17.836
5	Norfolk Southern	Med Term Note	Senior		300.000	8.625	5/15/2010	120.48	361.440	4.58	16.554
6	Norfolk Southern	Med Term Note	Senior		300.000	6.750	2/15/2011	112.25	336.750	4.58	15.423
7	Norfolk Southern	Med Term Note	Senior		700.000	7.250	2/15/2031	114.82	803.740	6.12	49.189
8	Norfolk Southern	Med Term Note	CR NSC 2007		340.325	7.350	5/15/2007	110.50	376.059	3.46	13.012
9	Norfolk Southern	Med Term Note	CR NSC 2017		550.000	7.700	5/15/2017	120.31	661.705	5.48	36.261
10	Norfolk Southern	Med Term Note	CR NSC 2027		800.000	7.800	5/15/2027	120.42	963.360	6.13	59.054
11	Norfolk Southern	Med Term Note	CR NSC 2037		716.600	7.050	5/1/2037	111.60	799.726	6.22	49.743
12	Norfolk Southern	Med Term Note	CR NSC 2097		350.000	7.900	5/15/2097	120.08	420.280	6.58	27.654
Total					\$4,906.925				\$5,704.685	5.452%	\$311.037

					Outstandg					
					Amt (\$mil)	Coupon	Maturity	Avg Price	Mkt. Value	at Book
1	Norfolk Southern	Income Debenture	2020		\$313.741	9.750	6/15/2020	100.000	313.741	
2	Norfolk Southern	Income Debenture	2043		138.085	7.875	3/15/2043	100.000	138.085	
3	Norfolk Southern	VA & SW Rwy	Marine Terminal		27.200	5.300	8/15/2013	100.000	27.200	
4	Norfolk Southern	Derivative Adj.	Marine Terminal		1.700	--		100.000	1.700	
5	Norfolk Southern	Med Term Note	Senior		200.000	6.000	4/30/2008	100.000	200.000	
6	Norfolk Southern	Med Term Note CR	NSC 2014		441.456	5.257	5/1/2014	100.000	441.456	
7	Norfolk Southern	Bond	Poca Dev Timber LLC		75.734	8.250	10/1/2019	100.000	75.734	
8	Norfolk Southern	Bond	Poca Dev Timber LLC		9.169	Zero	10/1/2019	100.000	9.169	
Total					\$1,207.085					\$1,207.085

Bonds, Notes and Debentures

Appendix D Page 7 of 8

Page 1 - Traded Bonds

		Outstandg Amt (\$mil)	Coupon	Maturity	Avg Price	Priced Mkt Val.	Avg Yield	Interest Cost
1	Union Pacific Corp. Debenture	164.131	6.250	5/1/2034	102.11	167.594	6.10	10.223
2	Union Pacific Corp. Debenture	594.675	6.625	2/1/2029	107.26	637.848	6.06	38.654
3	Union Pacific Corp. Debenture	249.380	7.000	2/1/2016	114.16	284.692	5.34	15.203
4	Union Pacific Corp. Debenture	247.768	7.125	2/1/2028	112.65	279.111	6.11	17.054
5	Union Pacific Corp. Debenture	112.415	8.350	5/1/2025	108.07	121.487	7.58	9.209
6	Union Pacific Corp. Note	249.505	3.875	2/15/2009	99.13	247.334	4.09	10.116
7	Union Pacific Corp. Note	345.299	5.750	10/15/2007	106.60	368.089	3.59	13.214
8	Union Pacific Corp. Note	298.503	6.125	1/15/2012	108.24	323.100	4.80	15.509
9	Union Pacific Corp. Note	249.993	6.400	2/1/2006	105.35	263.368	2.89	7.611
10	Union Pacific Corp. Note	327.138	6.500	4/15/2012	110.63	361.913	4.84	17.517
11	Union Pacific Corp. Note	299.585	6.625	2/1/2008	109.45	327.896	3.76	12.329
12	Union Pacific Corp. Note	398.673	6.650	1/15/2011	111.53	444.640	4.58	20.365
13	Union Pacific Corp. Note	256.750	6.700	12/1/2006	108.32	278.112	3.09	8.594
14	Union Pacific Corp. Note	249.922	7.250	11/1/2008	112.15	280.288	4.14	11.604
15	Union Pacific Corp. Note	149.721	7.375	9/15/2009	114.48	171.401	4.23	7.250
16	Union Pacific Corp. Note, Med. Term	300.000	6.790	11/9/2007	109.84	329.520	3.63	11.962
	Series E							

Total

\$4,493.458

\$4,886.391 4.634% \$226.412

Bonds, Notes and Debentures

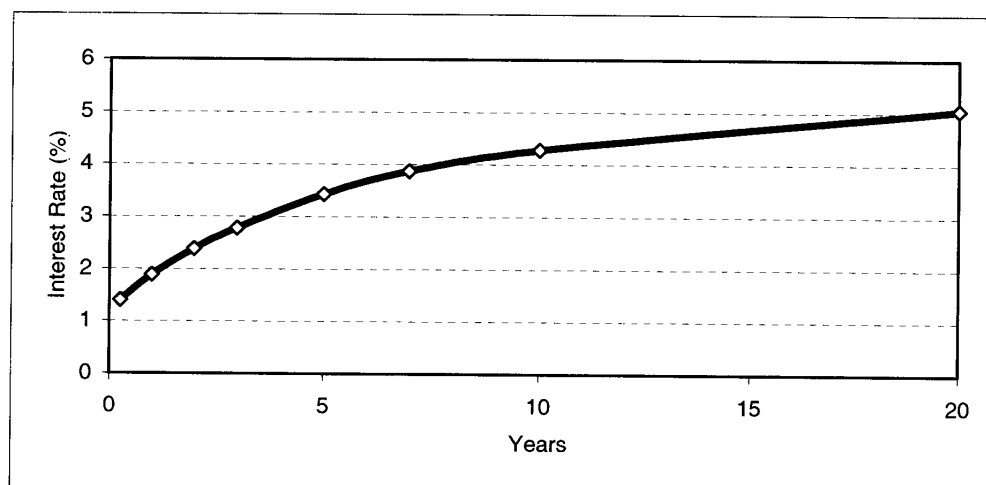
Page 2 - Bonds Not Traded

			Outstandg Amt (\$mil)	Coupon	Maturity	Avg Price	Mkt. Value at Book
1 Union Pacific	Debtenture		198.357	5.375	6/1/2033	100.000	198.357
2 Union Pacific	Note		298.401	3.625	6/1/2010	100.000	298.401
3 Union Pacific	Note	New Pro \$249.502 (1/12)	20.792	4.875	1/15/2015	100.000	20.792
4 Union Pacific	Note	New Pro \$249.361 (8/12)	166.241	5.375	5/1/2014	100.000	166.241
5 Union Pacific	Tax Exempt		156.540	Variable	Various	100.000	156.540
6 Union Pacific	Note, Med. Term	Series B	7.709	Various	Various	100.000	7.709
7 Union Pacific	Note, Med. Term	Series C	54.123	Various	Various	100.000	54.123
8 Union Pacific	Note, Med. Term	Series D	25.000	Various	Various	100.000	25.000
9 Union Pacific	KFW Loan		93.736	7.310	12/15/2012	100.000	93.736
10 Union Pacific	RR Tax Exempt	Port of Portland	3.700	2.550	12/1/2006	100.000	3.700
11 Union Pacific	RR Tax Exempt	Albany County	8.000	2.550	12/1/2015	100.000	8.000
12 Union Pacific	CNW Tr Reh Ln	Illinois /Phase I	0.645	2.000	7/1/2006	100.000	0.645
13 Union Pacific	CNW Tr Reh Ln	Illinois/Belvedere	0.167	3.000	9/1/2006	100.000	0.167
14 Union Pacific	MP Mrt Bond/Deb	Gen Mtge Ser A	30.096	4.750	1/1/2020	100.000	30.096
15 Union Pacific	MP Mrt Bond/Deb	Gen Mtge Ser B	29.998	4.750	1/1/2030	100.000	29.998
16 Union Pacific	MP Mrt Bond/Deb	Inc Debenture	96.025	5.000	1/1/2045	100.000	96.025
17 Union Pacific	MP Mrt Bond/Deb	Inc Debenture C&EI	1.641	5.000	1/1/2054	100.000	1.641
18 Union Pacific	IDCCA		0.838	3.000	11/8/2008	100.000	0.838
19 Union Pacific	Illinois DOT		20.462	3.000	12/31/2019	100.000	20.462
20 Union Pacific	Illinois DOT		1.892	3.000	3/14/2018	100.000	1.892
21 Union Pacific	Iowa DOT		0.236	3.000	12/31/2009	100.000	0.236
22 Union Pacific	ITCF 1999		31.705	5.750	11/1/2014	100.000	31.705
Total			\$1,246.304				\$1,246.304

Appendix E

Interest Rates on Selected Government Instruments
Yield in Percent Per Annum, Constant Maturity Rates for 2004

	3 Month	1 Year	2 Year	3 Year	5 Year	7 Year	10 Year	20 Year
January	0.90	1.24	1.76	2.27	3.12	3.65	4.15	5.01
February	0.94	1.24	1.74	2.25	3.07	3.59	4.08	4.94
March	0.95	1.19	1.58	2.00	2.79	3.31	3.83	4.72
April	0.96	1.43	2.07	2.57	3.39	3.89	4.35	5.16
May	1.04	1.78	2.53	3.10	3.85	4.31	4.72	5.46
June	1.29	2.12	2.76	3.26	3.93	4.35	4.73	5.45
July	1.36	2.10	2.64	3.05	3.69	4.11	4.50	5.24
August	1.50	2.02	2.51	2.88	3.47	3.90	4.28	5.07
September	1.68	2.12	2.53	2.83	3.36	3.75	4.13	4.89
October	1.79	2.23	2.58	2.85	3.35	3.75	4.10	4.85
November	2.11	2.50	2.85	3.09	3.53	3.88	4.19	4.89
December	2.22	2.67	3.01	3.21	3.60	3.93	4.23	4.88
Average	1.40	1.89	2.38	2.78	3.43	3.87	4.27	5.05



Source: Federal Reserve statistical release H.15, Treasury Constant Maturities, Nominal

Appendix F

1983 EQUIPMENT TRUST CERTIFICATE ISSUES

Date of Issue	Maturity Date	Railroad	Amount (\$000)	Coupon Rate	Composite Yield	Cost to Company
01/01/83	05/01/97	BO	\$14,910	10.750 %	10.57 %	10.73 %
01/15/83	11/15/97	CO	16,500	10.750	10.58	10.76
04/01/83	04/01/98	BN	13,200	10.500	10.62	10.68
05/15/83	05/15/98	BN	50,000	10.970	11.05	11.19
07/14/83	07/14/98	CO	35,490	Various	11.64	11.77
07/15/83	09/15/95	SBD	15,717	11.500	11.62	11.78
11/17/83	11/17/98	CO	21,345	11.625	11.87	11.95
12/01/83	11/1/88-89	ATSF	2,000	11.75-11.90	N/A	N/A
12/01/83	12/01/98	SBD	19,335	11.750	11.82	11.98

1984 EQUIPMENT TRUST CERTIFICATE ISSUES

Date of Issue	Maturity Date	Railroad	Amount (\$000)	Coupon Rate	Composite Yield	Cost to Company
11/13/1984	3/15/1999	SBD	\$26,025	11.750 %	11.88 %	11.96 %
11/29/1984	8/15/1999	C&O	18,600	11.500	11.84	11.90

1985 EQUIPMENT TRUST CERTIFICATE ISSUES

Date of Issue	Maturity Date	Railroad	Amount (\$000)	Coupon Rate	Composite Yield	Cost to Company
02/04/85	11/15/99	SBD	\$11,730	11.375 %	11.57 %	11.66 %
05/05/85	03/01/00	SBD	33,630	11.250	11.34	11.37
05/30/85	04/01/00	SBD	33,960	11.125	11.23	11.30
05/29/85	12/01/99	ATSF	23,175	10.750	10.81	10.89
07/09/85	05/15/00	SBD	33,960	10.000	9.94	10.03
07/01/85	07/01/00	NW	24,375	10.125	10.47	10.53
07/15/85	07/15/00	SRS	25,650	10.000	10.03	10.10
09/01/85	09/01/00	NW	24,375	10.250	10.18	10.25
09/18/85	09/15/00	SRS	27,000	10.125	10.17	10.24
11/15/85	11/15/00	CO	22,800	10.250	10.28	10.39
12/19/85	12/15/00	MP	37,500	Various	9.14	9.20

N/A - Data on yield not available

1986 EQUIPMENT TRUST CERTIFICATE ISSUES

Date of Issue	Maturity Date	Railroad	Amount (\$000)	Coupon Rate	Composite Yield	Cost to Company
03/15/86	03/15/01	SRS	\$34,500	8.000 %	7.89 %	7.96 %
06/01/86	06/01/01	SRS	27,000	8.250	8.44	8.51
03/06/86	08/15/01	UP	35,055	Various	7.68	7.75
07/23/86	08/01/01	SRS	27,225	7.750	7.86	7.93

1987 EQUIPMENT TRUST CERTIFICATE ISSUES

Date of Issue	Maturity Date	Railroad	Amount (\$000)	Coupon Rate	Composite Yield	Cost to Company
1/18/1987	1/15/2002	UP	\$33,750	VAR %	7.48 %	N/A %
4/1/1987	4/1/2002	SRS	20,550	7.250	7.48	N/A

1988 EQUIPMENT TRUST CERTIFICATE ISSUES

Date of Issue	Maturity Date	Railroad	Amount (\$000)	Coupon Rate	Composite Yield	Cost to Company
05/15/88	05/15/03	NW	\$18,000	8.750 %	9.23 %	9.47 %
10/15/88		SRS	27,075	8.750	9.12	9.38

1989 EQUIPMENT TRUST CERTIFICATE ISSUES

Date of Issue	Maturity Date	Railroad	Amount (\$000)	Coupon Rate	Composite Yield	Cost to Company
02/15/89	02/15/99	UP	\$102,400	9.500 %	9.50 %	9.68 %
06/15/89	06/15/99	UP	105,300	9.000	9.00	9.25
11/15/89	11/15/04	NW	51,300	8.125	8.35	8.41
12/15/89	12/15/99	NW	70,800	8.350	8.35	8.46

1990 EQUIPMENT TRUST CERTIFICATE ISSUES

Date of Issue	Maturity Date	Railroad	Amount (\$000)	Coupon Rate	Composite Yield	Cost to Company
02/01/90	02/01/05	NW	\$34,950	8.750 %	8.99 %	9.07 %
03/14/90	03/15/02	UP	60,800	9.630	9.63	9.75

1991 EQUIPMENT TRUST CERTIFICATE ISSUES

Date of Issue	Maturity Date	Railroad	Amount (\$000)	Coupon Rate	Composite Yield	Cost to Company
03/01/91	03/01/06	NS	\$54,000	8.000 %	8.18 %	8.18 %
05/01/91	05/15/03	KCSI	32,156	Various	9.11	N/A
08/15/91	08/15/06	NS	63,000	7.750	8.02	8.02
09/17/91	10/01/06	UP	56,520	7.750	8.02	8.02
10/24/91	03/01/06	CSX	93,568	8.410	8.41	8.51

1992 EQUIPMENT TRUST CERTIFICATE ISSUES

Date of Issue	Maturity Date	Railroad	Amount (\$000)	Coupon Rate	Composite Yield	Cost to Company
01/14/92	07/14/13	BN	\$58,590	Various %	7.15 %	7.16 %
01/31/92	02/31/12	UP	83,000	Various	7.39	7.44
03/04/92	03/01/07	CSX	57,000	Various	7.55	7.55
08/01/92	08/01/07	NS	63,300	6.500	6.61	6.67
08/15/92	08/15/07	CSX	60,750	Various	6.58	6.58
12/01/92	12/01/07	CSX	30,000	Various	6.91	6.91

1993 EQUIPMENT TRUST CERTIFICATE ISSUES

Date of Issue	Maturity Date	Railroad	Amount (\$000)	Coupon Rate	Composite Yield	Cost to Company
03/15/93	03/15/08	CSX	\$73,500	Various %	6.10 %	N/A %
03/16/93	04/01/03	UP	57,400	6.150	6.15	6.20
11/04/93	11/15/08	CR	102,000	Various	5.53	5.59
11/15/93	11/15/08	NS	38,550	Various	5.70	5.74
12/21/93	01/02/12	BN	78,126	Various	6.32	6.42

N/A - Data on yield not available

1994 EQUIPMENT TRUST CERTIFICATE ISSUES

Date of Issue	Maturity Date	Railroad	Amount (\$000)	Coupon Rate	Composite Yield	Cost to Company
01/03/94	02/01/01	UP	\$87,900	6.120 %	6.12 %	6.19 %
06/21/94	07/01/09	CR	48,750	Various	7.37	7.37
09/15/94	09/15/09	NS	41,400	Various	7.44	7.49
11/15/94	11/15/09	CSX	39,000	Various	8.18	8.18
12/15/94	12/15/06	KCS	54,700	Various	8.56	8.68

1995 EQUIPMENT TRUST CERTIFICATE ISSUES

Date of Issue	Maturity Date	Railroad	Amount (\$000)	Coupon Rate	Composite Yield	Cost to Company
03/15/95	03/15/10	CSX	\$58,500	Various %	7.48 %	7.59 %
06/01/95	06/01/10	CSX	57,000	Various	6.61	6.69

1996 EQUIPMENT TRUST CERTIFICATE ISSUES

Date of Issue	Maturity Date	Railroad	Amount (\$000)	Coupon Rate	Composite Yield	Cost to Company
03/15/96	03/15/11	CSX	\$57,000	Various	6.76	6.76 %
05/27/96	06/01/11	UP	81,500	Various	7.06	7.08
06/01/96	06/01/11	CSX	60,000	Various	7.29	7.36
07/01/96	07/01/11	CR	25,900	Various	7.06	7.11
09/24/96	09/24/11	BN	33,500	Various	7.21	7.24
11/19/96	12/01/11	UP	70,500	Various	6.50	6.50

N/A - Data on yield not available

Appendix G

Summary of Yields for ETC's and CSA's

Versus

Government Bonds

Note: In 2004, no ETCs or CSAs were issued by the Sample Railroads.

Appendix H

2004 Current Cost of Debt and Its Market Value (\$mil)

Type of Debt	Reference	Market Value	Market Weight	Current Cost	Weighted Cost of Debt
Traded Debt					
Type of Instrument					
Bonds, Notes & Debentures	Appendix C	\$18,500.0	93.21%	5.103%	4.756%
Equipment Trust Certificates	Workpapers	1,246.6	6.28%	5.014%	0.315%
Conditional Sales Agreements	Workpapers	101.3	0.51%	5.391%	0.028%
Total Without Floatation Costs		\$19,847.8	100.0%		5.099%
Floatation Costs					
Bonds, Notes & Debentures	SEC Study		93.21%	0.16%	0.149%
Equipment Trust Certificates	SEC Study		6.28%	0.13%	0.008%
Conditional Sales Agreements			0.51%	0.13%	0.001%
Total Floatation Costs			100.0%		0.158%
Weighted Cost of Debt					5.257%
Weighted Cost of Debt (rounded)					5.26%
Non-Traded Debt					
Type of Instrument					
Bonds, Notes & Debentures	Appendix D	\$6,408.1			
Capital Leases	Workpapers	\$2,307.9			
Other Misc. Debt	Workpapers	\$705.4			
Total Non-Traded Debt		\$9,421.4			
Total Market Value		\$29,269.2			

Appendix I

Flotation Costs for 1981 - 1997
Equipment Trust Certificate Issues

Date of Issue	Railroad	Amount (\$000)	Composite Yield	Cost to Company	Flotation Costs
01/01/81	BN	\$26,250	14.31 %	14.44 %	0.13 %
02/01/81	ATSF	13,200	13.76	13.88	0.12
02/01/81	ATSF	26,250	15.31	15.41	0.10
02/01/81	MP	27,600	12.72	12.83	0.11
02/01/81	SOU	21,919	13.26	13.37	0.11
02/01/81	AGS	2,215	13.26	13.37	0.11
02/01/81	CAR & NW	566	13.26	13.37	0.11
02/01/81	GN	566	13.26	13.37	0.11
02/01/81	INTERSTATE	271	13.26	13.37	0.11
02/24/81	UP	25,500	13.28	13.32	0.04
04/15/81	SOU	22,740	13.55	13.67	0.12
04/15/81	AGS	1,458	13.55	13.67	0.12
04/15/81	CAR & NW	1,569	13.55	13.67	0.12
04/15/81	GN	359	13.55	13.67	0.12
04/15/81	INTERSTATE	166	13.55	13.67	0.12
04/28/81	UP	25,500	13.22	13.33	0.11
05/01/81	LN	17,250	14.05	14.21	0.16
05/15/81	MP	26,700	13.67	13.79	0.12
06/01/81	SOU	12,854	14.43	14.53	0.10
06/01/81	CNOTP	8,398	14.43	14.53	0.10
06/01/81	AGS	839	14.43	14.53	0.10
06/01/81	GS&F	839	14.43	14.53	0.10
06/01/81	CAR & NW	767	14.43	14.53	0.10
06/01/81	GN	302	14.43	14.53	0.10
06/01/81	INTERSTATE	101	14.43	14.53	0.10
07/01/81	SCL	24,750	14.19	14.33	0.14
08/01/81	AGS	2,494	14.73	14.86	0.13
08/01/81	CGA	842	14.73	14.86	0.13
08/01/81	SOU	9,216	14.73	14.86	0.13
08/01/81	CNOTP	5,325	14.73	14.86	0.13
08/01/81	GS&F	4,171	14.73	14.86	0.13
08/01/81	CAR & NW	552	14.73	14.86	0.13
08/01/81	GN	1,399	14.73	14.86	0.13
09/15/81	MP	26,700	15.50	15.62	0.12
11/01/81	SCL	24,750	13.60	13.76	0.16
12/15/81	MP	22,200	15.01	15.17	0.16
01/15/82	MP	28,200	15.14	15.27	0.13
02/01/82	ATSF	15,900	14.47	14.60	0.13
03/15/82	MP	12,300	14.13	14.27	0.14
08/24/82	UP	102,800	13.03	13.20	0.17

Flotation Costs for 1981 - 1997
Equipment Trust Certificate Issues

Date of Issue	Railroad	Amount (\$000)	Composite Yield	Cost to Company	Flotation Costs
01/01/83	B&O	\$14,910	10.57 %	10.73 %	0.16 %
01/15/83	C&O	16,500	10.58	10.76	0.18
04/01/83	BN	13,200	10.62	10.68	0.06
05/15/83	BN	50,000	11.05	11.19	0.14
07/15/83	SBD	15,717	11.62	11.78	0.16
07/15/83	C&O	35,490	11.64	11.77	0.13
11/17/83	C&O	21,345	11.87	11.95	0.08
12/06/83	SBD	19,335	11.82	11.98	0.16
11/13/84	SBD	26,025	11.88	11.96	0.08
11/29/84	C&O	18,600	11.84	11.90	0.06
02/04/85	SBD	11,730	11.57	11.66	0.09
05/05/85	SBD	33,630	11.34	11.37	0.03
05/03/85	SBD	33,960	11.23	11.30	0.07
05/29/85	ATSF	23,175	10.81	10.89	0.08
07/09/85	SBD	33,960	9.94	10.03	0.09
07/01/85	NW	24,375	10.47	10.53	0.06
07/15/85	SRS	25,650	10.03	10.10	0.07
09/01/85	NW	24,375	10.18	10.25	0.07
09/18/85	SRS	27,000	10.17	10.24	0.07
11/15/85	CO	22,800	10.28	10.39	0.11
12/19/85	MP	37,500	9.14	9.20	0.06
12/19/85	MP	37,500	8.54	8.60	0.06
03/15/86	SRS	34,500	7.89	7.96	0.07
06/01/86	SRS	27,000	8.44	8.51	0.07
08/06/86	UP	35,055	7.68	7.75	0.07
07/23/86	SRS	27,225	7.86	7.93	0.07
04/01/87	SRS	20,550	9.12	N/A	N/A
05/15/88	NW	18,000	9.23	9.47	0.24
10/15/88	SRS	27,075	9.12	9.38	0.26
01/15/89	UP	102,400	9.50	9.68	0.18
06/15/89	UP	105,300	9.00	9.25	0.25
11/15/89	NW	51,300	8.35	8.41	0.06
12/15/89	NW	70,800	8.35	8.46	0.11
02/01/90	NW	34,950	8.99	9.07	0.08
03/14/90	UP	60,800	9.63	9.75	0.12

N/A - Not Available

Flotation Costs for 1981 - 1997
Equipment Trust Certificate Issues

Date of Issue	Railroad	Amount (\$000)	Composite Yield	Cost to Company	Flotation Costs
03/01/91	NS	\$54,000	8.18 %	8.18 %	0.00 %
03/01/91	NS	250,000	9.00	N/A	N/A
08/15/91	NS	63,000	8.00	8.02	0.00
09/17/91	UP	56,520	7.83	7.89	0.06
10/24/91	CSX	93,568	8.41	8.51	0.10
01/14/92	BN	58,590	7.15	7.16	0.01
01/31/92	UP	83,000	7.39	7.44	0.05
03/04/92	CSX	57,000	7.55	7.55	0.00
08/01/92	NS	63,300	6.61	6.67	0.06
08/15/92	CSX	60,750	6.58	6.58	0.00
12/01/92	CSX	30,000	6.91	6.91	0.00
03/15/93	CSX	73,500	6.10	N/A	N/A
03/16/93	UP	57,400	6.15	6.20	0.05
11/04/93	CR	102,000	5.53	5.59	0.06
11/15/93	NS	38,500	5.70	5.74	0.00
12/21/93	BN	78,126	6.32	6.42	0.10
01/03/94	UP	87,900	6.12	6.19	0.07
06/21/94	CR	48,750	7.37	7.37	0.00
09/15/94	NS	41,400	7.44	7.49	0.05
11/15/94	CSX	39,000	8.18	8.18	0.00
12/15/94	KCS	54,700	8.56	8.68	0.12
03/15/95	CSX	58,500	7.48	7.59	0.11
06/01/95	CSX	57,000	6.61	6.69	0.08
03/15/96	CSX	57,000	6.71	6.76	0.05
05/27/96	UPC	81,500	7.06	7.08	0.02
06/01/96	CSX	60,000	7.29	7.36	0.07
07/01/96	CR	25,900	7.06	7.11	0.05
09/24/96	BN	33,500	7.21	7.24	0.03
11/19/96	UP	70,500	6.50	6.50	0.00

No issues for 1997.

N/A - Not Available

Simple Average 1981-1996 = 0.10 %

Source: Information provided (1981-1986) by Salomon Brothers Inc.'s "Special Report to Railroad Officers" and data provided by individual railroads. See Appendix F for detail on each ETC.

Appendix J

**Calculation of Composite Current Dividend Yield
For Each Month and for Year
2004**

January

Railroad	Avg. Common Stock Price	Number Of Shares	Market Value	Weight	Dividend Paid	Dividend Yield	Weighted Yield
BNI	\$32.23	371,459,535	\$11,972,140,813	0.262063	\$0.1500	1.86%	0.49%
CSX	\$34.59	215,067,006	7,439,167,738	0.162839	\$0.1000	1.16%	0.19%
NSC	\$23.09	390,761,063	9,022,672,945	0.197501	\$0.0800	1.39%	0.27%
UNP	\$66.82	258,160,531	17,250,286,681	0.377598	\$0.3000	1.80%	0.68%
Total			\$45,684,268,177	1.000000			1.63%

February

Railroad	Avg. Common Stock Price	Number Of Shares	Market Value	Weight	Dividend Paid	Dividend Yield	Weighted Yield
BNI	\$32.27	371,459,535	\$11,986,999,194	0.272150	\$0.1500	1.86%	0.51%
CSX	\$31.43	215,067,006	6,759,555,999	0.153467	\$0.1000	1.27%	0.20%
NSC	\$22.17	390,761,063	8,663,172,767	0.196686	\$0.0800	1.44%	0.28%
UNP	\$64.44	258,160,531	16,635,864,618	0.377696	\$0.3000	1.86%	0.70%
Total			\$44,045,592,577	1.000000			1.69%

March

Railroad	Avg. Common Stock Price	Number Of Shares	Market Value	Weight	Dividend Paid	Dividend Yield	Weighted Yield
BNI	\$30.95	371,033,473	\$11,483,485,989	0.271961	\$0.1500	1.94%	0.53%
CSX	\$30.24	215,089,414	6,504,303,879	0.154040	\$0.1000	1.32%	0.20%
NSC	\$21.32	391,330,076	8,343,157,220	0.197589	\$0.0800	1.50%	0.30%
UNP	\$61.35	259,067,362	15,893,782,659	0.376409	\$0.3000	1.96%	0.74%
Total			\$42,224,729,748	1.000000			1.76%

Sources:

Daily Stock prices were obtained from financial databases, and averaged.

Number of Shares of Stock and Dividends were obtained from railroads and SEC 10-K reports.

Market Value is the Average Stock Price multiplied by the number of shares.

Individual railroad weights are based on the Market Value.

**Calculation of Composite Current Dividend Yield
For Each Month and for Year
2004**

April

Railroad	Avg. Common Stock Price	Number Of Shares	Market Value	Weight	Dividend Paid	Dividend Yield	Weighted Yield
BNI	\$32.32	371,033,473	\$11,991,801,847	0.281725	\$0.1500	1.86%	0.52%
CSX	\$30.28	215,089,414	6,512,907,456	0.153008	\$0.1000	1.32%	0.20%
NSC	\$22.81	391,330,076	8,926,239,034	0.209705	\$0.0800	1.40%	0.29%
UNP	\$58.42	259,067,362	15,134,715,288	0.355562	\$0.3000	2.05%	0.73%
Total			\$42,565,663,625	1.000000			1.75%

May

Railroad	Avg. Common Stock Price	Number Of Shares	Market Value	Weight	Dividend Paid	Dividend Yield	Weighted Yield
BNI	\$32.66	371,033,473	\$12,117,953,228	0.282291	\$0.1500	1.84%	0.52%
CSX	\$30.94	215,089,414	6,654,866,469	0.155027	\$0.1000	1.29%	0.20%
NSC	\$23.81	391,330,076	9,317,569,110	0.217055	\$0.0800	1.34%	0.29%
UNP	\$57.27	259,067,362	14,836,787,822	0.345627	\$0.3000	2.10%	0.72%
Total			\$42,927,176,629	1.000000			1.73%

June

Railroad	Avg. Common Stock Price	Number Of Shares	Market Value	Weight	Dividend Paid	Dividend Yield	Weighted Yield
BNI	\$34.18	372,282,789	\$12,724,625,728	0.284608	\$0.1500	1.76%	0.50%
CSX	\$32.20	215,210,234	6,929,769,535	0.154996	\$0.1000	1.24%	0.19%
NSC	\$25.18	392,960,574	9,894,747,253	0.221313	\$0.0800	1.27%	0.28%
UNP	\$58.49	259,193,538	15,160,230,038	0.339084	\$0.3000	2.05%	0.70%
Total			\$44,709,372,554	1.000000			1.67%

Sources:

Daily Stock prices were obtained from financial databases, and averaged.

Number of Shares of Stock and Dividends were obtained from railroads and SEC 10-K reports.

Market Value is the Average Stock Price multiplied by the number of shares.

Individual railroad weights are based on the Market Value.

**Calculation of Composite Current Dividend Yield
For Each Month and for Year
2004**

July

Railroad	Avg. Common Stock Price	Number Of Shares	Market Value	Weight	Dividend Paid	Dividend Yield	Weighted Yield
BNI	\$34.75	372,282,789	\$12,936,826,918	0.289800	\$0.1700	1.96%	0.57%
CSX	\$31.11	215,210,234	6,695,190,380	0.149980	\$0.1000	1.29%	0.19%
NSC	\$25.84	392,960,574	10,154,101,232	0.227464	\$0.1000	1.55%	0.35%
UNP	\$57.31	259,193,538	14,854,381,663	0.332756	\$0.3000	2.09%	0.70%
Total			\$44,640,500,192	1.000000			1.81%

August

Railroad	Avg. Common Stock Price	Number Of Shares	Market Value	Weight	Dividend Paid	Dividend Yield	Weighted Yield
BNI	\$35.16	372,282,789	\$13,089,462,861	0.290796	\$0.1700	1.93%	0.56%
CSX	\$31.14	215,210,234	6,701,646,687	0.148884	\$0.1000	1.28%	0.19%
NSC	\$27.18	392,960,574	10,680,668,401	0.237282	\$0.1000	1.47%	0.35%
UNP	\$56.10	259,193,538	14,540,757,482	0.323038	\$0.3000	2.14%	0.69%
Total			\$45,012,535,431	1.000000			1.79%

September

Railroad	Avg. Common Stock Price	Number Of Shares	Market Value	Weight	Dividend Paid	Dividend Yield	Weighted Yield
BNI	\$37.15	374,473,702	\$13,911,698,029	0.291624	\$0.1700	1.83%	0.53%
CSX	\$33.19	215,245,770	7,144,007,106	0.149756	\$0.1000	1.21%	0.18%
NSC	\$29.10	395,280,161	11,502,652,685	0.241124	\$0.1000	1.37%	0.33%
UNP	\$58.41	259,302,449	15,145,856,046	0.317495	\$0.3000	2.05%	0.65%
Total			\$47,704,213,867	1.000000			1.70%

Sources:

Daily Stock prices were obtained from financial databases, and averaged.

Number of Shares of Stock and Dividends were obtained from railroads and SEC 10-K reports.

Market Value is the Average Stock Price multiplied by the number of shares.

Individual railroad weights are based on the Market Value.

**Calculation of Composite Current Dividend Yield
For Each Month and for Year
2004**

October

Railroad	Avg. Common Stock Price	Number Of Shares	Market Value	Weight	Dividend Paid	Dividend Yield	Weighted Yield
BNI	\$40.08	374,473,702	\$15,008,905,976	0.295001	\$0.1700	1.70%	0.50%
CSX	\$34.95	215,245,770	7,522,839,662	0.147862	\$0.1000	1.14%	0.17%
NSC	\$31.57	395,280,161	12,478,994,683	0.245276	\$0.1000	1.27%	0.31%
UNP	\$61.19	259,302,449	15,866,716,854	0.311861	\$0.3000	1.96%	0.61%
Total			\$50,877,457,175	1.000000			1.59%

November

Railroad	Avg. Common Stock Price	Number Of Shares	Market Value	Weight	Dividend Paid	Dividend Yield	Weighted Yield
BNI	\$44.15	374,473,702	\$16,533,013,943	0.302188	\$0.1700	1.54%	0.47%
CSX	\$37.37	215,245,770	8,043,734,425	0.147022	\$0.1000	1.07%	0.16%
NSC	\$34.35	395,280,161	13,577,873,530	0.248174	\$0.1000	1.16%	0.29%
UNP	\$63.85	259,302,449	16,556,461,369	0.302616	\$0.3000	1.88%	0.57%
Total			\$54,711,083,267	1.000000			1.48%

December

Railroad	Avg. Common Stock Price	Number Of Shares	Market Value	Weight	Dividend Paid	Dividend Yield	Weighted Yield
BNI	\$46.51	376,812,373	\$17,525,543,468	0.307834	\$0.1700	1.46%	0.45%
CSX	\$39.04	215,528,753	8,414,242,517	0.147795	\$0.1000	1.02%	0.15%
NSC	\$35.64	399,712,442	14,245,751,433	0.250225	\$0.1000	1.12%	0.28%
UNP	\$64.28	260,519,878	16,746,217,758	0.294145	\$0.3000	1.87%	0.55%
Total			\$56,931,755,176	1.000000			1.43%

The Simple Average of the 12 monthly dividend yields is: 1.67%
The Simple Average of the 12 monthly market values is: \$46,836,195,701

Sources:

Daily Stock prices were obtained from financial databases, and averaged.

Number of Shares of Stock and Dividends were obtained from railroads and SEC 10-K reports.

Market Value is the Average Stock Price multiplied by the number of shares.

Individual railroad weights are based on the Market Value.